CURTIS'S

BOTANICAL MAGAZINE,

COMPRISING THE

Plants of the Royal Gardens of Kew

AND

OF OTHER BOTANICAL ESTABLISHMENTS IN GREAT BRITAIN;

WITH SUITABLE DESCRIPTIONS;

BY

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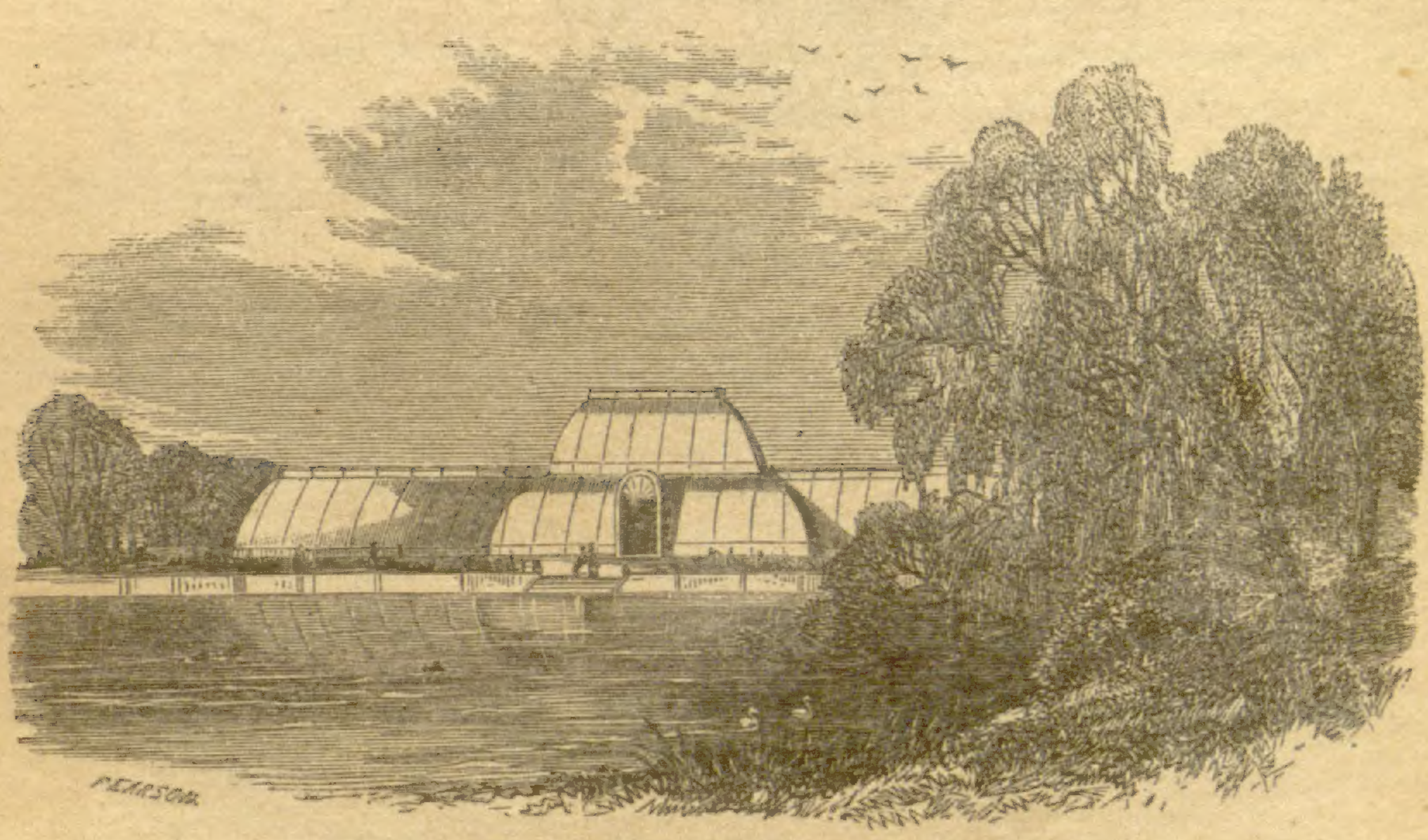

" Retired leisure
That in trim gardens takes his pleasure."

Mo. Bot. Garden
1897.

LONDON:

LOVELL REEVE & CO., HENRIETTA STREET, COVENT GARDEN.

1862.

SHOUT
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JOHN EDWARD TAYLOR, PRINTER,
LITTLE QUEEN STREET, LINCOLN'S INN FIELDS.

TO

THOMAS BELL, ESQ., V.P.R.S., F.G.S.,

LATE PRESIDENT OF THE LINNEAN SOCIETY,

PROFESSOR OF ZOOLOGY IN KING'S COLLEGE, LONDON,

ETC., ETC., ETC.,

The present Volume is Dedicated,

IN PROOF OF

THE ESTEEM IN WHICH HIS SCIENTIFIC KNOWLEDGE AND TALENTS

ARE HELD BY THE PUBLIC, AS WELL AS

BY

HIS FAITHFUL AND ATTACHED FRIEND,

THE AUTHOR.

Royal Gardens, Kew,
December 31, 1862.

Vincent Brooks, Imp.

TAB. 5289.

STANHOPEA WARDII.

Mr. Ward's Stanhopea.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. (*Vide supra*, TAB. 5278.)

STANHOPEA *Wardii;* racemo pendulo multifloro, sepalis lateralibus subrotundo-oblongis concavis acutis basi alte connatis, petalis lanceolatis revolutis, hypochilio sessili angusto saccato intus tuberculato medio angustiore marginibus approximatis depressis complanatis basi connatis, mesochilio utrinque cornuto in medio sinu cornuum foveato, epichilio cornuum longitudine subrotundo-ovato acuto indiviso marginibus recurvis. *Lindl.*

STANHOPEA Wardii. *Loddiges in Litt. Lindl. Sertum Orchidaceum, pl.* 20. *Knowles and Westcott, t.* 90.

Dr. Lindley has given a good figure and description of this plant; but our specimen, from the Kew Orchideous House, is singularly fine in the size and number of flowers on the raceme, and also in the colouring of the perianth,—there a clear bright yellow, here a deep golden-orange, but with smaller and fainter spots on the sepals and petals. The fragrance of the blossoms is very powerful. Our plants were received from Guatemala, and the flowers were in perfection in August. It differs, Dr. Lindley says, from *Stanhopea quadricornis*, in the lower part of the lip not having the strong horn on each side; from *S. oculata*, in the lip being sessile, not stipitate, and a great deal shorter in proportion to the other parts; and from *S. saccata*, Batem., in the middle segment of the lip being three-lobed, in the sharpness of the petals, and in the form of the horns of the lip. Indeed, the chief distinctive characters of the species of *Stanhopea* are derived from the labellum; there is great uniformity in the rest of the flower, and still more in the pseudobulbs and foliage. One of the most striking features of this flower is the colour of the cavity formed at the base of the lip, lined as it were with dark velvety purple, reflecting a silvery light, and giving it the appearance of being frosted. This plant, in full flower, has a

fine effect when suspended from the rafters in a flat basket or dish, the pseudobulbs and leaves erect, and the noble panicle of rich golden flowers originating in and pendent from the base of the pseudobulbs.

Fig. 1. Column and lip, separated from the rest of the flower,—*magnified*.

W. Fitch, del. et lith.

Vincent Brooks Imp.

TAB. 5290.

RHODANTHE MANGLESII, var. *maculata*.

Mangles' Rhodanthe, spotted-flowered var.

Nat. Ord. COMPOSITÆ.—SYNGENESIA ÆQUALIS.

Gen. Char. (*Vide supra*, TAB. 5283.)

RHODANTHE *Manglesii*.

RHODANTHE Manglesii. *Lindl. Bot. Reg. t.* 1703. *Hook. Bot. Mag. t.* 3483. *Don, Brit. Fl. Gard. ser.* 2. *t.* 295. *De Cand. Prodr. v.* 6. *p.* 159. *Lehm. Enum. Pl. Preiss. v.* 1. *p.* 447. *Paxton, Mag. of Bot. v.* 3. *p.* 173. *Fl. des Serres, v.* 6. *p.* 622.

Var. *sanguinea;* floribus eximie purpureo-sanguineis, disco atro-sanguineo.

RHODANTHE Manglesii, *var.* sanguinea. *Hook. Bot. Mag. t.* 5283.

RHODANTHE sanguinea. *Hort.*

Var. *maculata;* floribus duplo majoribus extus pallide roseis fere albis, radii involucralis basi atro-purpureis, disco flavo. (TAB. NOSTR. 5290.)

RHODANTHE maculata. *Drummond, MSS., et Hort.*

Dr. Lindley, the author of the genus and species, says of this plant,—"Its season of perfection is May and June, at which time there is nothing in the gardens that equals it in beauty, for it possesses the brilliancy of the Cape *Helichrysa*, without their stiffness and formality." And that was said nearly thirty years ago, when the more common condition of the species only was known to us, and well figured by Dr. Lindley, Bot. Reg. t. 1703, and by us in the present work, Tab. 3483; but Mr. Drummond, who may be called *par excellence* the "Swan River Botanist," long since called our attention to dried specimens of two beautiful varieties which grew wild in Western Australia; to the one he gave the name of *sanguinea*, to the other *maculata*. The first of these we published lately at our Tab. 5283,* and the other we have now the pleasure to give on the accompanying plate; and both have been derived from the same source, Mr. Thompson, of Ipswich, who raised them from Western Australian

* By an accident Mr. Thompson's name was omitted as the importer of that plant.

JANUARY 1ST, 1862.

seeds sent by Drummond, and to whom a certificate of merit was awarded by the Floral Committee of the Royal Horticultural Society. This is much the finest kind of the three, the flowers being twice as large as the other two, the disk yellow; the inside of the involucral ray is bright rose-colour, dark purple at the base, and the rest of the involucral scales externally of a satiny, pale pinkish-white.

Fig. 1. Inner involucral scale. 2. Floret. 3. Plumose hair of the pappus:—*all magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5291.

MALORTIEA gracilis.

Slender Malortiea.

Nat. Ord. Palmeæ.—Monœcia decandria.

Gen. Char. (*Vide supra*, Tab. 5247.)

Malortiea *gracilis;* foliis longe petiolatis, lamina ambitu late ovato-quadrata apice dimidiato-bipartita, segmentis integris v. in pinnulas paucas basi remotas fissis, basin versus fenestratim fissis, apicibus grosse et irregulariter lobulatis lobis dentatis, spadice gracili apicem versus subfastigiatim ramoso, rarius erectis floriferis, spathis parvis ad divisuras spadicis bracteæformibus, floribus sparsis masculis et fœmineis in eodem spadice, calycis lobis rotundatis, petalis patulis, staminibus sub-10, in. fl. masc. filamentis filiformi-subulatis antheris oblongis, in fl. fœm. antheris effœtis tubo calycis sessilibus, ovario ovoideo, in stylum brevem attenuato, stigmatibus 3 recurvis.

Malortiea gracilis. *Wendland, Index Palmarum, p.* 28.

Chamædorea fenestrata. *Hort. Parment.*

Chamærops fenestrata. *Hort. Amstel.*

Geonoma fenestrata. *Mackoy.*

Under Plate 5247 of this work we have figured another species of this singularly graceful genus of dwarf Palms, and alluded to the subject of the present plate as a congener. Since that time we have found a reference to the description of the genus in Bot. Zeit. 1854, p. 494, being published in the 'Allgemeine Garten Zeitung, etc.,' Jahrg. xxi., a work which we unfortunately do not possess. Not knowing fully Mr. Wendland's views as to the structure and limits of the genus, we must still refrain from publishing a generic character, but may remark that the genus appears to differ from *Chamædorea* mainly in the numerous (ten to twelve) stamens of the male flower, and ring of abortive stamens in the tube of the inner perianth of the female. It is a native of Guatemala.

Descr. A dwarf very graceful *Palm*, about eighteen inches to two feet high. *Stem* slender, ringed. *Leaves* on slender *petioles*, little more than a span long, and as broad; split to the rachis

at the apex, the two halves in lobes. *Lobes* divaricating, each quadrate, entire or split into one or two broad *pinnules*, with lobulate toothed margins, also split partially at the rachis so as to present a fenestrated appearance. *Spadix* strict, erect, peduncled, branched in a somewhat fastigiate manner towards the apex. *Branches* simple, angled. *Flowers* scattered along the branches, sessile, *male* and *female* on the same branch. *Calycine lobes* rounded; *petaline* triangular-oblong, valvate. *Stamens* about ten to twelve.

Fig. 1. Diminished portrait of the whole Palm. 2. Leaf. 3. Spadix,—*natural size*. 4. Male flowers. 5. One removed. 6. Female flowers. 7. The same laid open:—*all magnified*.

Vincent Brooks, Imp

Tab. 5292.

ANEMIOPSIS Californica.

Californian Anemiopsis.

Nat. Ord. Saurureæ.—Hexandria Monogynia.

Gen. Char. Involucrum 5–8-phyllum, coloratum. *Spadix* simplex; floribus hermaphroditis, bracteatis. *Perianthium* nullum. *Stamina* epigyna, 6 nunc 8; *filamenta* crassa. *Antheræ* ovales, biloculares; loculis lateralibus connectivo crasso disjunctis. *Styli* 3 nunc 4; *ovaria* coadunata, apice hiantia, 1-locularia. *Placentæ* 3–4 inter stylos laterales, pauciovulatæ. *Fructus* cum spadice coalescens. *Capsulæ* uniloculares, 3–4-valves, apice solo dehiscentes, sub-6-spermæ. *Semina* subrotunda, punctulata.—Herba *perennis, subaquatica, stolonifera*. Caulis *monophyllus, proliferus, monocephalus.* Folia *radicalia, stipulata, cordato-obovalia, obtusa, petiolata; caulinum amplexicaule.*

Anemiopsis *Californica.*

Anemiopsis Californica (*under the gen. name* Anemia). *Nutt. in Tayl. Annals of Nat. Hist. v.* 1. *p.* 136. *Hook. and Arn. Bot. of Beech. Voy. p.* 390. *t.* 92.

This remarkable plant was first detected by Nuttall at San Diego, Upper California, and some of his original specimens are preserved in our herbarium. Our next were received from Douglas, and from the late Dr. Sinclair collected during the surveying voyage of H.M.S. Sulphur, on the American Pacific coasts; from Dr. Coulter, from Fremont's collections, n. 472; and since, from Zacatecas, Hartweg, n. 4, and New Mexico. Our specimens here figured were raised by Mr. Wheeler from Californian seeds, and we are glad to be able to illustrate so rare and little-known a plant from living individuals.

Descr. The *root* is perennial, fusiform, and often fasciculate. *Leaves* nearly all radical, long-petiolate, elliptical, subcordate at the base, obtuse, blunt, entire, with few pinnated veins; *petioles* hairy, sheathing at the base. *Stem*, or perhaps rather *scape*, hairy, longer than the leaves, erect, terete, monophyllous; the *leaf* sessile, and frequently bearing a young plant from its axil. *Spadix* at first short, erect, conical, clothed with hermaphrodite flowers, without any perianth, but subtended by an involucre of

about six, oblong, spreading, white *bracts*, of which the three inner are spotted with red: these are persistent, and as the fructification advances they are reflected, and turn brown: there are also several white, spathulate *bracts* among the flowers. Each *flower* consists of a *pistil*, with three, blunt, subulate, moderately spreading, or rather erecto-patent, *styles*. The *ovary* is one-celled, and is incorporated with, and immersed in, the substance of the spadix; and from the summit of this ovary are six stamens, three alternating with the styles, and three opposite to them. *Stigmas* obtuse. *Ovules* in three clusters, from vertical persisting receptacles.

Fig. 1. Transverse section of a spadix, with flowers, and the smaller interior bracts. 2. Flower, cut out from the spadix. 3. Transverse section of the ovary. 4. Stamen. 5. One of the inner bracts:—*all more or less magnified.*

Vincent Brooks, Imp.

Tab. 5293.

ONCIDIUM EXCAVATUM.

Excavated Oncidium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Perianthium explanatum. *Sepala* sæpius undulata; lateralibus nunc sub labello connatis. *Petala* conformia. *Labellum* maximum, ecalcaratum, cum columna continuum, varie lobatum, basi tuberculatum v. cristatum. *Columna* libera, semiteres, apice utrinque alata. *Anthera* semibilocularis; *rostello* nunc abbreviato, nunc elongato-rostrato. *Pollinia* 2, postice sulcata; *caudicula* plana, glandula oblonga.—Herbæ *epiphytæ, nunc pseudobulbosæ.* Folia *coriacea.* Scapi *paniculati, vaginati, rarius simplices.* Flores *speciosi, lutei, sæpius maculati, raro albi. Lindl.*

Oncidium *excavatum;* pseudobulbis oblongis compressis basi apiceque foliosis, foliis lineari-oblongis, "bracteis squamæformibus membranaceis acutis, sepalis lateralibus obovatis obtusis liberis supremo concavo acuto, petalis membranaceis oblongis retusis basi angustatis, labello sessili pandurato apice rotundato emarginato sellæformi basi cordato convexo fornicatim excavato, columnæ alis retusis rotundatis." *Lindl.*

Oncidium excavatum. *Lind. in Sert. Orchid. sub t.* 25. *Bot. Reg.* 1839. *Misc. n.* 150. *Paxt. Fl. Gard. v.* 1, *under t.* 21. *Lindl. Fol. Orchid. Gen. Oncid. p.* 27.

B. *aurosum*, Lindl.; "flowers deep-brown in the middle, crest very rugose with a thin vertical plate interposed between the front lateral ridges." *Lindl. l.c.*

Oncidium aurosum. *Rchb. in Bonpl. v.* 1. 1854.

The labours of Dr. Lindley among the Orchideous plants are beyond all praise. Of the genus *Oncidium* alone he has described a hundred and ninety-eight species, exclusive of eleven "insufficiently known," and he has abolished many bad species. No representation of the present very handsome kind has been anywhere given, and it is probably yet cultivated in few collections. We are indebted for our knowledge of the plant to Thomas Dawson, Esq., of Meadowbank, Uddingston, on the banks of the Clyde. It was purchased by him, at a sale in Glasgow, as "*Oncidium*, from Honduras." Dr. Lindley pronounces it to be his *O. excavatum*, described from Peruvian specimens in the Hookerian Herbarium, gathered by Matthews

and others from the sources of the Marañon, detected by Warszewicz. It may certainly be reckoned among the finest species of the genus, from its ample panicle, large size of the flowers, and the rich golden-yellow of the perianth, and the dark cinnamon-coloured spots. It is easily distinguished from its congeners, by "the base of the labellum being very convex, a little hollowed out in front, and excavated with a deep pit on the under side,"—only to be seen by looking at the back of the flower, and putting aside the two lateral sepals. It is this cavity which suggested to the author the specific name.

The pseudobulbs and leaves were unknown to Dr. Lindley when he published his description. The former are four to five inches long, ovate-oblong, compressed, subsulcate. The leaves are a foot to one and a half foot long; two arise from the summit of the pseudobulbs, and three to five spring from its base: the latter have broad, sheathing bases.

Fig. 1. Column and labellum, seen from above,—*magnified*.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5294.

CLERODENDRON CALAMITOSUM.

Hurtful Clerodendron.

Nat. Ord. Verbenaceæ.—Didynamia Angiospermia.

Gen. Char. *Calyx* campanulatus, rarius tubulosus, interdum pentagonus et subinflatus, 5-fidus vel 5-dentatus, rarissime truncatus. *Corolla* infundibularis vel subhypocraterimorpha; *tubo* sæpissime calycem conspicue excedente interdum longissimo; *limbo* 5-partito laciniis superioribus paulo magis approximatis subinæquali, vel laciniis inferioribus magis minusve adscendentibus obliquo, immo subsecundo. *Stamina* 4, corollæ tubo inserta, longe exserta, subdidynama; *antheræ* supra basin insertæ, basi fissæ, biloculares, *loculis* parallelis, rima longitudinali dehiscentibus. *Ovarium* 4-loculare, loculis 1-ovulatis; *ovulo* in spermophoro angulo centrali adnato, pendulo. *Stylus* filiformis, exsertus, stigmate bifido acuto. *Drupa* calyce ampliato insidens vel inclusa, baccata vel carnosa, quadri- vel sæpius abortu mono-di-tri-pyrena, sæpius 2–4-loba, *pyrenis* maturitate distinctis unilocularibus, *putamine* lignoso lævi. *Semen* solitarium, erectum. *Cotyledones* oleosæ, applicatæ; *radicula* brevis, infera.—Frutices *vel* arbores *inter tropicos veteris orbis, imprimis vero Asiæ, copiose, in* America *vero parce crescentes.* Folia *opposita vel terna, simplicia, integra vel rarius lobata*, phyllopodio *interdum prominente persistenti insidentia.* Cymæ *trichotomæ vel axillares, vel in paniculam terminalem collectæ. Schau.*

Clerodendron *calamitosum;* ramulis obsolete tetragonis petiolis pedunculisque pube hirtella subcanescentibus, foliis membranaceis oppositis ellipticis in petiolum acuminatis vel attenuatis obtusis acuminatisve a medio grosse et inæqualiter serrato-dentatis adultis utrinque præter nervos glabriusculis opacis, panicula terminali subfastigiata brachiata inferne foliosa, cymis semel bisve trifidis folium subæquantibus brevioribusve, calyce puberulo 5-partito patente, laciniis linearibus acutis, corollæ tubo puberulo calycem quadruplo excedente. *Schau.*

Clerodendron calamitosum. *Linn. Mant. v.* 1. *p.* 90. *De Cand. Prodr. v.* 11. *p.* 663.

Volkameria alternifolia. *Burm. Fl. Ind. p.* 137. *t.* 44.

This is a modest, unobtrusive plant, with its pure white blossoms, as compared with the gorgeous scarlet-flowered species now commonly cultivated in our stoves, such as *Clerodendron infortunatum, squamatum, fallax, glandulosum, Bethuneanum,* etc. It is a native of Java, but though figured and described by

Burmann, in his 'Flora Indica,' nearly a century ago, it has only recently been known in our gardens.

Inquiries are often made why species of *Clerodendron* have received the specific names of *fortunatum*, *infortunatum*, and *calamitosum*. The earlier known species were supposed to have medicinal properties, and of various qualities; and hence the generic name, from κληρος, *a lot*, or *anything used in determining chances*, and δενδρον, *a tree*. The first of the species just named, being good for the colic, was called *fortunatum;* two suspected of being injurious or poisonous were called *infortunatum* and *calamitosum*.

Fig. 1. Calyx and pistil,—*slightly magnified.*

J. Forrest del et lith.

Vincent Brooks Imp.

Tab. 5295.

ARISTOLOCHIA arborea.

Tree Aristolochia.

Nat. Ord. Aristolochieæ.—Gynandria Hexandria.

Gen. Char. Flores hermaphroditi. *Perigonium* coloratum, tubulosum; *tubo* ınferne cum ovario connato, supra ovarium ventricoso, recto v. curvato; *limbo* obliquo, ligulato, nunc bi-trifido. *Stamina* 6, disco epigyno inserta; *filamenta* brevissima, subnulla; *antheræ* extrorsæ, biloculares, dorso stylo adnatæ. *Ovarium* ınferum sexloculare. *Ovula* plurima, loculorum angulo centrali uniseriatim affixa, horizontalia, anatropa. *Stylus* brevis; *stigma* radiato-sexpartitum. *Capsula* coriacea, nuda, sexlocularis, loculicido 6-valvis. *Semina* plurima, bracteata; *testa* coriacea, membranaceo-marginata; *raphe* lata, fungoso-suberosa, infera, in chalazam apicalem impressam desinente. *Embryo* in basi axeos albuminis dense carnosi v. cornei minimus; *radicula* centripeta.—Herbæ *v.* frutices *erecti, prostrati, scandentes vel volubiles, inter tropicos obvii, nec in regionibus extratropicis temperatis rari, e Capite Bonæ-Spei exules;* foliis *alternis, integris integerrimis vel lobatis;* pedunculis *axillaribus, uni-bi-multifloris;* floribus *quandoque maximis, utplurimum luridis. Endl.*

Aristolochia *arborea;* subarborescens, trunco 6–8-pedali erecto ramoso, ramis teretibus dense fusco-pubescenti-tomentosis flexuosis subnodosis, foliis spithamæis ad bipedalibus alternis brevi-petiolatis oblongo-ellipticis acuminatis pinnatim venosis, subtus pubescenti-villosis reticulatisque, floribus fasciculato-paniculatis, paniculis e basi trunci egredientibus subsessilibus paucifloris, perianthio tubuloso-subinfundibuliformi subcoriaceo-carnoso, tubo inflato duplicato-flexuoso striato, limbo obliquo amplo cucullato reticulato apice subito inflexo-acuminato, intus ore processu orbiculari elevato disciformi puberulo-glanduloso clauso, stylo antherifero brevi, stigmate obtuse subumbilicato vix lobato.

Aristolochia arborea. *Linden, Cat.* 13. 1858,* *p.* 6.

A beautiful young, healthy, flowering plant of this most remarkable species of *Aristolochia*, was presented to the Royal Gardens by Mr. Linden, about three feet high, which he had lately introduced from New Granada, and to which he had given the specific name we here adopt, of *arborea*. The voyage and

* Mr. Linden adds to the name, "Arbuste non grimpant, de 6 à 8 pieds de hauteur, remarquable par des feuilles très-amples de 2 pieds de longueur à reflets bleuâtres. Découvert par M. Ghiesbrecht dans les fôrets de Chiapas."

journey had so far shaken off the flowers, that it was found necessary to send the plant immediately to the artist to be figured, and thus an opportunity was lost to us of carefully examining, while recent, the interior of the flower; but I am sure the figures of Mr. Fitch are to be depended upon; and it is hence evident that at the faux or mouth of the tube is an elevated large circular disk, velvety on the surface, apparently closing the whole aperture. I am not aware of anything of the kind being found in other species of the genus. In general habit this species has some affinity with our *Aristolochia Thwaitesii*,* figured and described at Tab. 4918 of this work; but there the panicles spring rather from excrescences of the root than from the trunk itself, but those flowers exhibited no internal structure such as we here represent.

Fig. 1. Corolla, with limb and upper part of the tube removed, showing the large elevated disk which closes the faux,—*slightly magnified.* 2. Style and stigma, with the anthers,—*more magnified.*

* I am glad to have the opportunity of correcting an error into which I have fallen, in stating that that plant was a native of Ceylon, communicated to us by Mr. Thwaites. An excellent friend assures us that such is not the case, nor am I able to trace its origin. I possess however another allied but very distinct new species of *Aristolochia* from St. Martha, New Granada (*Mr. Purdie*), with very copious panicles arising from subradicant tubercles. I think it probable our plant figured at Tab. 4918 is, as well as the present, from Tropical America.

W. Fitch, del et lith.

Vincent Brooks, Imp

Tab. 5296.

MAXILLARIA venusta.

Graceful Maxillaria.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Perianthium connivens, raro patens. *Sepala* lateralia cum basi producta columnæ connata. *Petala* subconformia. *Labellum* trilobum, cucullatum, sessile, cum basi producta columnæ articulatum. *Columna* semiteres, aptera. *Anthera* subbilocularis. *Pollinia* 2, bipartibilia v. integra, *caudicula* brevi, *glandula* transversa.—Epiphytæ (*Americanæ*) *pseudobulbosæ, acaules vel caulescentes.* Folia *plicata v. coriacea.* Pedunculi *radicales axillares vel terminales, uni v. multiflori. Lindl.*

Maxillaria *venusta;* pseudobulbis oblongis, compressis lævibus viridibus 2-phyllis, foliis oblongo-lanceolatis, brevi acuminatis subcoriaceis lævibus inferne longe attenuatis, pedunculis radicalibus intense rubris vaginato-bracteatis unifloris, folio brevioribus flore submutante amplo, sepalis petalisque patentibus lanceolatis longe acuminatis albis, petalis lateralibus majoribus basi latioribus sublonge productis, labello perianthio multo breviore cum columna prolongata articulato trilobo, disco callo rotundato tomentoso, lobis subæqualibus, intermedio ovato obtuso luteo, lateralibus valde obtusis albis rubro-marginatis, subtus maculis duabus rotundatis rubris.

Maxillaria venusta. "*Lindl. Reich. fil. Orchid. Schlimmianæ*" *in Bonplandia*, 1854, *p.* 277.

Maxillaria Anatomorum? *Reichb. fil. in Bot. Zeit. v.* 10. *p.* 935, *et in Xenia Orchid. v.* 1. *p.* 188. *t.* 67.

This charming plant was communicated for publication in the 'Botanical Magazine' by Mr. Tucker, gardener to G. Reed, Esq., of Burnham, Somerset. Dr. Lindley has referred the specimen, and no doubt correctly, to his *M. venusta* of the 'Orchideæ Schlimmianæ.' Dr. Hooker and myself had considered it to be identical with, or only a more perfect specimen of, the *M. Anatomorum* of Reich. fil., first published in Bot. Zeit., and then in his 'Xenia Orchidacea,' with a figure; and I should still be disposed to believe it to be the same, but that Dr. Reichenbach has expressed a different opinion; for he says of *M. Anatomorum*, "Affinis *M. venusta*, Fendl. Reichb. fil., sepalis angustioribus, labelli angusti lobis lateralibus obtusatis supra discum non intran-

tibus;" and of *M. venusta*, "Aff. *M. Anatomorum*, Reichb. fil., floribus duplo majoribus, sepalis multo latioribus, labelli trilobi lobis lateralibus angulatis lobo medio triangulo margine revoluto, callo triangulo in disco ante sinus loborum lateralium, tota superficie furfuraceo, rostello obtuse dentato." I think it safest to adopt Dr. Lindley's name. The species is a native of Ocaña, New Granada, at an altitude of 5–6000 feet above the level of the sea. It flowered in great beauty in Mr. Reed's stove in October, 1861.

Fig. 1. Column and labellum, with the upper part of the ovary. 2. Pollen-masses: —*magnified.*

W Fitch, del et lith.

Vincent Brooks, Imp.

CROCUS ochroleucus.

Cream-coloured Crocus.

Nat. Ord. Irideæ.—Triandria Trigynia.

Gen. Char. Perigonium corollinum superum, infundibuliforme; *tubo* elongato; *limbi* sexpartiti laciniis interioribus paulo minoribus, erecto-patentibus. *Stamina* 3, fauci perigonii inserta, erecta, inclusa; *filamenta* filiformia; *antheræ* sagittatæ basifixæ. *Ovarium* inferum, obtuse trigonum. *Ovula* plurima in loculorum angulo centrali biseriata, adscendentia, anatropa. *Stylus* filiformis, elongatus; *stigmata* 3, dilatata, cuneata, carnosa, apicibus cucullata et denticulata. *Capsula* membranacea, trigona, trilocularis, loculicido-trivalvis. *Semina* plurima, subglobosa; *testa* coriacea, carnosula, ad umbilicum rugulosa; *raphe* tenui ad chalazam apicalem excurrente. *Embryo* axilis, albumine corneo multo brevior, extremitate radiculari umbilicum spectante, infera.—Herbæ *in Europa et Asia media et in regione Mediterranea indigenæ, acaules;* foliis *anguste linearibus;* floribus *radicalibus magnis speciosis;* ovariis *subhypogæis; nonnullæ ob peculiares stigmatum qualitates etiam cultæ. Endl.*

Crocus *ochroleucus;* tunicis radicalibus tenuiter membranaceis fuscis, vaginis ternis elongatis inæqualibus, foliis synanthiis latiusculis glabris, scapo elongato nudo, spatha diphylla acuminata vaginis plerumque inclusa, perigonii tubo limbo duplo longiore, fauce flavida glabra, laciniis ellipticis obtusis pallide ochroleucis, antheris albidis, styli divisionibus longis apice dilatato breviter denticulatis. *Boiss.*

Crocus ochroleucus. *Boiss. et Gaillardot, in Boiss. Diagn. Plant. Nov. Orient. ser.* 2. *n.* 4. *p.* 93.

One would almost have supposed that the labours of the late Hon. and Rev. Wm. Herbert, among the species of the favourite genus Crocus, had exhausted the subject: but recent researches in the East, of M. Boissier and his botanical friends, have added six new species to our catalogue, among which is the present very elegant and delicate one.

It was discovered by M. Gaillardot, "in cultis argillosis Libani, prope Scanderoun supra Sidonem," flowering in the middle of December. Bulbs of the same species were collected by Dr. Hooker in October of 1861, in the same neighbourhood, that is, on the Anti-Lebanon. Being planted, and gently forced with

heat, and removed to a cool greenhouse, they produced their charming cream-coloured blossoms with a yellow eye, in December of the following year. M. Boissier speaks of its nearest affinity being *Crocus Boryi*, which, besides the slenderer leaves, differs in the deeply multifid divisions of the style, and from *C. Pestalozzæ*, by the latter having exceedingly narrow foliage, in the flowers thrice smaller, and in the branches of the style entire at the apex; a very unusual character.

Fig. 1. Tube of the perianth laid open, showing the three stamens. 2. Portion of the style and stigmas:—*magnified*.

W.Fitch, del et lith

Vincent Brooks Imp

Tab. 5298.

IRIS longipetala.

Long-petaled Iris.

Nat. Ord. Irideæ.—Triandria Trigynia.

Gen. Char. Perigonium corollinum superum ; *tubo* brevi, limbi 6-partiti laciniis exterioribus sæpissime reflexo et basi barbatis vel rarius nudis ; interioribus erectis, sæpe minoribus v. nonnunquam minimis. *Stamina* 3, perigonii laciniis exterioribus basi inserta ; *filamenta* filiformia v. subulata ; *antheræ* oblongæ, basifixæ. *Ovarium* inferum, obsolete trigonum, triloculare. *Ovula* plurima, in loculorum angulo centrali biseriata, horizontalia, anatropa. *Stylus* triqueter, basi sæpius cum perigonii tubo connatus ; *stigmata* 3, petaloideo-dilatata, supra carinata, subtus canaliculata, plica transversa bilabiata, staminibus opposita. *Capsula* coriacea, trigona vel hexagona, trilocularis, apice loculicido-trivalvis. *Semina* plurima, horizontalia, compresso-plana, marginata ; *raphe* tenui, intra testam laxam libera. *Embryo* axilis, albumine carnoso multo brevior, extremitate radicular umbilicum attingente, infera.—Herbæ *perennes, in hemisphæra boreali temperata obviæ, nonnullæ aquaticæ ;* rhizomate *tuberoso vel rarius bulboso ;* foliis *gramineis, interdum 4-angularibus, sæpissime ensatis, equitantibus ;* caule *sæpius compresso, ramoso ;* floribus *speciosis, magnis, terminalibus, solitariis v. spicatis ;* spathis *uni-multifloris. Endl.*

Iris *longipetala ;* imberbis, foliis angustis (sub-$\frac{1}{2}$-unciam latis) erectis acutis caulem solidum bracteatum aliquantulum superantibus, spatha bi-triflora, valvis acutis (circiter $8\frac{1}{2}$-uncialibus) germen oblongum superantibus, pedunculis sesquiuncialibus tubo brevi ($\frac{1}{2}$-unc. libero vix $\frac{1}{16}$ solido), petalis sepalisque angustis longitudine subæqualibus (circiter $2\frac{1}{2}$ uncias) cristas styli duplo fere superantibus, perianthii colore albo pulcherrime purpureo-venoso medio flavo. *Herb.*

Iris longipetala. *Herb. in Hook. et Arn. Bot. of Beech. Voy. p.* 395.

Two new species of *Iris* were detected by the naturalists of Captain Beechey's Voyage of H. M. surveying ship Sulphur, in California, both very distinct from any other known of this extensive genus: these are *Iris Douglasiana,* Herbert in Hook. and Arn. Bot. of Beechey's Voyage, and *I. longipetala, l. c.* p. 395. Tubers of the latter species have been received at the Royal Horticultural Society, and a specimen was kindly sent to us by Mr. Thomas Moore, from the garden at Chiswick, last summer (1861), from which the accompanying figure is taken. It seems quite hardy, and will prove a great ornament to our flower-gardens.

February 1st, 1862.

Vincent Brooks, Imp

Tab. 5299.

LEEA coccinea.

Scarlet-flowered Leea.

Nat. Ord. Ampelideæ.—Monadelphia Pentandria.

Gen. Char. Calyx liber, 5-dentatus, persistens. *Corolla* toro laminæformi calycis basim vestienti inserta, cum urceolo staminifero connata, quinquefida, laciniis revolutis. *Urceolus* subglobosus, corollæ basi adnatus, emarginato-5-lobus, fauce intus annulo membranaceo semiclausus. *Stamina* 5, urceoli dorso inter ejusdem lobos inserta, petalis opposita; *filamenta* introflexa; *antheras* extrorsas, biloculares, utrinque emarginatas, medio dorso insertas, marginibus plerumque inter se connatas vel rarius distinctas inter urceolum condentia. *Ovarium* disco semi-immersum, tri-sexloculare. *Ovula* in loculis solitaria, ex anguli centralis basi adscendentia, anatropa. *Stylus* brevis, simplex; *stigma* subcapitatum. *Bacca* tri-sexlocularis; *loculis* monospermis. *Semina* erecta; *testa* ossea, endopleura intra albuminis rugas longitudinaliter profunde immersa. *Embryo* parvus, in basi albuminis cartilaginei lobati orthotropus; *cotyledonibus* ovatis, subfoliaceis, *radicula* conica, infera.—Suffrutices *vel* frutices, *interdum arborescentes, in Asia tropica, insulis Borbonicis, et Capite Bonæ-Spei crescentes;* foliis *oppositis, uni-bi-tripinnatis;* foliolis *integerrimis vel serratis;* petiolis *basi dilatata vaginantibus;* pedunculis *oppositifoliis, nunquam in cirrhos conversis, cymoso-decompositis. Endl.*

Leea *coccinea;* glaberrima, foliis tripinnatis, foliolis petiolulatis pro genere parvis (ad extremum sesquipollicem longis) oblongo-lanceolatis caudatis repando-dentatis undulatis supra saturate viridibus nitidis, cyma trichotoma, floribus confertis brevissime pedicellatis fere sessilibus coccineis, coronæ staminеæ fere ad medium 5-fidæ divisuris truncato-subretusis, antheris primum inter se connexis mox liberis, stylo incluso. *Planch.*

Leea coccinea. *Planch. in Hort. Donatensis, p.* 6.

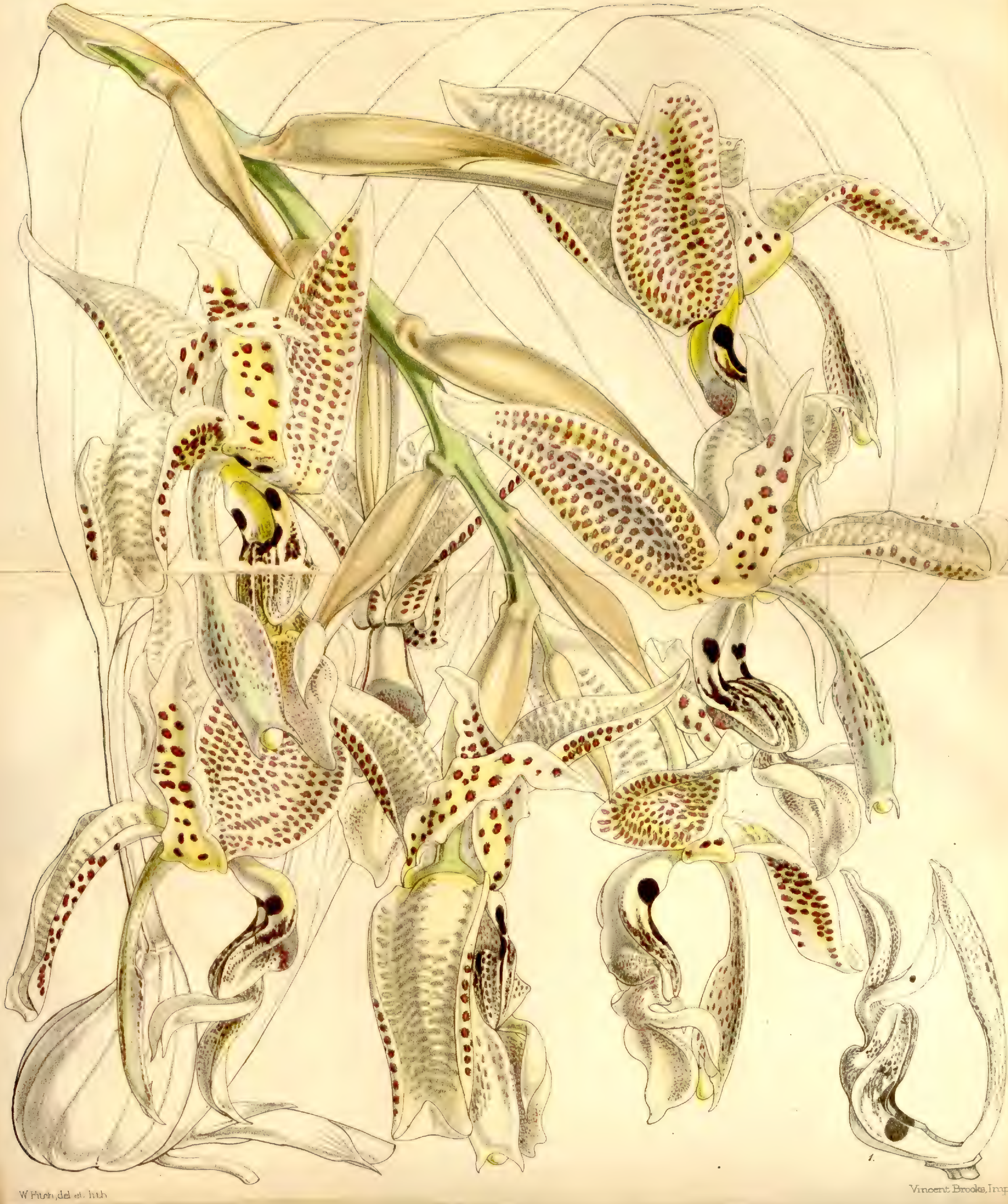
Leea lucida. *Lind. Cat. Ann.* 1833.

Panax excelsa *et* Aralia excelsa. *Hortul. Plurim. (Planchon).*

This new species of *Leea* has been for some years past cultivated in the stoves of European gardens, where it eminently deserves a place on account of its neat and graceful habit, and the thick-flowered cymes of scarlet flowers; but its native country is not known, though suspected to be Java. In Continental nurseries it seems to have passed under the name of *Leea lucida* (Linden), and of *Panax excelsa* and *Aralia excelsa*, the two last on

no authority whatever. It has lately found a describer in the beautiful work 'Hortus Donatensis: ou Catalogue des Plantes cultivées dans les Serres de S. Ex. le Prince A. de Démidoff à San Donato, près Florence,' edited by Professor Planchon. It is the smallest of all known species, and commences flowering when the young plants are less than a foot high.

Fig. 1. Apex of a leaf. 2. Flower. 3. Flower, with the stamens removed from the urceolus. 4. Vertical section of a flower, showing the pistil and the interior of the urceolus. 5. Stamen. 6. Pistil and hypogynal disk:—*all but fig.* 1 *more or less magnified.*



W Fitch, del et lith

Vincent Brooks, Imp.

Tab. 5300.

STANHOPEA oculata.

Eyed Stanhopea.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5278.)

Stanhopea *oculata ;* bracteis ovariis longe acuminatis duplo brevioribus, hypochilio unguiculato elongato cymbiformi antice intruso basi ecorni intus lævi extus bicarinato, mesochilio bicorni carnoso aperte sulcato mutico, epichilio ovato integro, cornubus semiteretibus ascendentibus acutis, columna late alata. *Lindl.*

Stanhopea oculata. *Lindl. Gen. et. Sp. Orchid. p.* 158. *Bot. Reg. t.* 1800. *Lindl. Fol. Orchid. p.* 3.

Ceratochilus oculatus. *Lodd. Bot. Cab. t.* 1764.

Native of Mexico, introduced about thirty years ago through Mr. Deppe, from Xalapa, by Mr. Loddiges, who published a figure of it in 'Botanical Cabinet' under the name of *Ceratochilus oculatus*. It is powerfully, almost too, odoriferous, scenting the whole house with its fragrance ; and the size and number of flowers on the spike, and the waxiness and smoothness and almost polish of these, together with their strange form, add to the interest of the plant.

Dr. Lindley, in his more recent writings on the genus *Stanhopea* (in 'Folia Orchidacea'), enumerates and describes twenty species, most of which are now figured in this work, and he there notices the variations in the colouring of the flowers of that now under consideration. "These flowers," he says, "are usually lemon-coloured, with a large number of lilac spots on the sepals, a smaller number on the petals, a deep yellow eye, and two, or occasionally four, large dark brown spots on the side of the hypochil, which is very much lengthened out, as if unguiculate ; by the latter circumstance it is chiefly known from *S. Wardii* (our Tab. 5289) and *S. Bucephalus* (our Tab. 5278), which latter has a long narrow opening to the hypochil, and short ovaries. Nume-

rous varieties occur in our gardens, varying in colour and in the spotting of the lip. One, called *Barkeriana*, looks like *S. insignis*, with the lip of *S. oculata*, and is very handsome; the sepals, petals, and column are covered with numerous purple freckles rather than spots, which as the flower fades run together, as if their colouring matter were dissolved; so that at last the flower becomes of a dull wine-red tint."

Fig. 1. Column and lip,—*slightly magnified.*

Tab. 5301.

IOCHROMA GRANDIFLORUM.

Large-flowered Jochroma.

Nat. Ord. Solaneæ.—Pentandria Monogynia.

Gen. Char. Calyx ovato-tubulosus, medio ventricosus, inæqualiter 5-dentatus, reticulatus, persistens et sæpius accrescens. *Corolla* tubulosa, tubo longo subcurvato, medio subinflato, calyce 2–6-plo longiore, limbo brevi subcampanulato 5-partito, lobis acutis, æstivatione plicata. *Stamina* 5, inclusa aut vix exserta. *Filamenta* tenuia, glabra vel infra medium villosa, corollæ tubo imo adnata, infra medium libera. *Antheræ* oblongæ, biloculares, longitudinaliter dehiscentes. *Ovarium* obovatum, biloculare, *orulis* plurimis, in dissepimento incrassato utrinque affixis. *Stylus* filiformis, apice incrassatus, erectus, staminibus subæqualis. *Stigma* capitato-bilobum. *Bacca* ovata, calyce inflato inclusa, 2-locularis. *Semina* numerosa, compressa, reniformi-rhomboidea, in pulpa nidulantia, *testa* scrobiculata, hilo in sinu laterali perforato. *Embryo* intra albumen carnosum fere semiannularis, filiformis.—Frutices *Americæ calidioris, tomentosi vel pubescentes.* Folia *petiolata, integra.* Umbellæ *vel* cymæ *paucifloræ, sessiles vel breviter pedunculatæ, primum terminales, dein laterales.* Corollæ *cyaneæ vel violaceæ, speciosæ. Dunal.*

Iochroma (§ Cleochroma) *grandiflorum;* fruticosum, ramis teretibus pubescentibus, foliis late ovatis acuminatis basi rotundatis supra pubescentibus subtus pallidioribus subtomentosis penninerviis, nervis plurimis divaricatis, cyma simplici pedunculata terminali pluriflora pendula, pedunculo pedicellisque calyceque inflato pubescenti-tomentosis, corollæ infundibuliformis tubo longo pubescente, fauce subcampanulata, limbo amplo lobis 5 triangularibus patenti-recurvis, filamentis inclusis glaberrimis.

Iochroma grandiflorum. *Benth. in Bot. Reg. v.* 31 (1845), *sub t.* 20. *Dunal, in De Cand. Prodr.* 13. *part* 1. *p.* 491.

Iochroma Warscewiczii. *Regel in Fl. des Serres, ser.* 2. *v.* 1. *t.* 1163.

Cleochroma grandiflorum. *Miers, Illustr. of S. Am. Plants, v.* 1. *p.* 150. *t.* 32.

A very handsome species of *Iochroma,* hardly deserving to be held generically distinct, as Mr. Miers is disposed to consider it, is very beautiful in its large rich purple flowers, which compensate for the rather coarse and Solanaceous foliage. It was discovered by Mr. Hartweg in mountains of Saraguru, Ecuador, and has since been found in Peru by Mr. Lobb and also Mr. Warscewicz; but by whom first introduced to our

Gardens, I do not know. It has been some years in cultivation at Kew.

Our plant flowered freely in the stove in November, 1861.

Fig. 1. Stamen. 2. Pistil :—*magnified.*

1.

2

3

W. Fitch del. et lith.

Vincent Brooks, Imp.

TAB. 5302.

LIGULARIA KÆMPFERI; *aureo-maculata.*

Kæmpfer's Ligularia, golden-spotted var.

Nat. Ord. COMPOSITÆ.—SYNGENESIA SUPERFLUA.

Gen. Char. Capitulum multiflorum, radiatum; *fl. radii* 1-serialibus, ligulatis, fœmineis sæpe biligulatis aut stam. rudimenta retinentibus; *disci* tubulosis 5-dentatis hermaphroditis. *Involucrum* campanulatum, subuniseriale. *Receptaculum* nudum, planum. *Stylus* disci ramis obtusis, pube longe descendente utrinque obsessis, cono brevissimo superatis. *Achenia* erostria, sulcata, teretiuscula, exalata, eciliata. *Pappus* pluriserialis, pilosus, conformis.—Herbæ *perennes, gerontogeæ, fere omnes Asiaticæ.* Folia *alterna, varia.* Capitula *ampla, flava, in* racemum thyrsumve *disposita, aut solitaria longe pedunculata. De Cand.*

LIGULARIA *Kæmpferi;* rhizomate carnoso perenni superne petiolisque elongatis, radiculis dense lanatis, foliis junioribus arachnoideis maturis glabris subrotundo-cordatis margine angulato-sinuatis subdentatisque basi sinu profundo, scapo erecto, petiolis longioribus bracteatis lanatis, racemo subcorymboso, capitulis basi bracteolatis, ovariis hirsutis.

LIGULARIA Kæmpferi. *Sieb. et Zuccar. Fl. Jap. v.* 1. *p.* 77. *t.* 35.

TUSSILAGO Japonica. *Linn. Mart. p.* 113. *Thunb. Jap. p.* 313. *Banks, Ic. Kæmpf. t.* 27, 28. *Willd. Sp. Pl. v.* 3. *p.* 1968.

SENECIO Kæmpferi. *De Cand. Prodr. v.* 6. *p.* 363.

ARNICA tussilaginea folio. *Burmann, Fl. Ind. p.* 182.

TSOWA seu Tswa. *Kæmpf. Amœn. p.* 827.

DORONICUM Tussilaginis folio ex insula Chusan, etc. *Pluk. Amalth. p.* 71. *t.* 390. *f.* 6.

FARFUGIUM Kæmpferi. *Benth. Fl. Hongkong. p.* 191?

Var. *aureo-maculata;* foliis maculis suborbicularibus majusculis aureo-flavis pictis. (TAB. NOSTR. 5302.)

FARFUGIUM grande. *Lindl. in Gard. Chron.* 1857, *p.* 4.

This plant, so remarkable, when judiciously managed, for the beauty of its foliage, and now well known in our gardens under the name of *Farfugium grande,* was transmitted in 1856 to Mr. Glendinning's Nursery, at Chiswick, by Mr. Fortune, from the garden of a mandarin in the north of China; and it was towards the close of the year exhibited and naturally much admired at

one of the London meetings of the Horticultural Society. Early in 1857, it was described by Dr. Lindley as a new plant, under the name of *Farfugium grande*. But it is far from being a new species or a new genus. It is a native indeed of Japan, and seems to have been known to all botanical visitors there from the days of Kæmpfer to the present time.

Siebold says :—" Per totam Japoniam frequens, amat præcipue regionum altiorum locos humidos, rivulorum ripas umbrosas, rupes madidas," etc. Elsewhere two varieties are particularly mentioned by him, one with curled leaves, the other the kind here figured " à feuilles tachetées d'or," for this is not the normal state, nor does it appear to be found wild in that condition. My native specimens from Ringgold and Rodgers' United States North Pacific Exploring Expedition, are gathered by Mr. C. Wright in the Loo-Choo Islands. I refer Mr. Bentham's *Farfugium Kæmpferi* hither with a mark of doubt. The specimens are from "among rocks, near the top of Victoria Peak, Hongkong," *C. Wilford;* the leaves are more coriaceous, with much sharper and more distinct angles (generally five), and a very broad sinus; indeed the base of the leaf is often transversely truncated, so that the leaf then becomes semiorbicular, and the flowers are very much larger: in these particulars the species much more nearly approaches the *Ligularia gigantea* of Siebold and Zuccarini, *l. c.* tab. 36, natives of Niphon, whose leaves are stated to grow from five to eighteen feet long, with the blade five feet in diameter.* Nevertheless, since, when cultivated in gardens in the south of Japan it does not attain a greater height than three to four feet, and since in the general structure of the inflorescence and capitula and florets there is the closest similarity, the probability is that all these may prove to be varieties of one and the same species.

Our plant which flowered at Kew in December, 1861, exhibited no appearance of bilabiate florets, distinctly observed by Dr. Lindley; but, indeed, it is characteristic of the genus to have the radical florets "ligulate or biligulate."

Fig. 1. Floret of the disk. 2. Floret of the ray. 3. Hair from the pappus:—*magnified.*

* Siebold tells us that the Japanese court artist, *Hoksai*, has represented in his Album, devoted to some remarkable natural history objects, a tuft of this plant, whose leaves (always radical) are sheltering many gardeners from the rain." This kind Siebold took with him alive to Belgium, where it appeared in some catalogues, before 1830, under the name of *Tussilago Japonica.*

W. Fitch, del. et lith.

Vincent Brooks, Imp

Tab. 5303.

DENDROBIUM Lowii.

Mr. Low's Dendrobium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala membranacea, erecta v. patentia; lateralibus majoribus obliquis, cum basi producta columnæ connatis. *Petala* sepalo supremo sæpius majora, nunc minora, semper membranacea. *Labellum* cum pede columnæ articulatum v. connatum, semper sessile, indivisum vel trilobum, sæpius membranaceum, nunc appendiculatum. *Columna* semiteres, basi longe producta. *Anthera* bilocularis. *Pollinia* 4, per paria collateralia.—Herbæ *epiphytæ, nunc caulescentes, nunc rhizomate repente pseudo-bulbifero.* Folia *plana, sæpius venosa.* Flores *solitarii, fasciculati v. racemosi, speciosi. Lindl.*

Dendrobium (§ Eudendrobia, nigro-hirsuta) *Lowii;* caule erecto nigro-hirsuto, foliis ovato-oblongis apice obliquis subtus nigro-pubescentibus, racemis densis multifloris (floribus aureis), petalis oblongis obtusis undulatis dorsali duplo longioribus, labello trilobo, lobis lateralibus brevibus lineari-lanceolatis incurvis paullo super basin insertis, intermedii longe unguiculati, limbo subrotundo convexo decurvo barbato, mento infundibuliformi, columna semicylindrica 3-dentata. *Lindl.*

Dendrobium Lowii. *Lindl. in Gard. Chron. for Nov.* 30, 1861. *p.* 1046 *a.*

A splendid and remarkable new species, deservedly dedicated to Hugh Low, Esq., of Labuan, who found it on a mountain, "on the north-west coast of Borneo, at an elevation of 3000 feet above the sea-level, growing on trees in exposed situations," whence it was introduced to his father's nursery at Clapton. It flowered in November, 1861.

Not having the opportunity of examining this in a living state myself, I gladly avail myself of the remarks of Dr. Lindley:—"A most attractive species, imported by Messrs. Low, of Clapton, from Borneo, and exhibited by them at a meeting of the Floral Committee of the Horticultural Society. Fragments of what appears to be the same plant occur among Mr. Motley's Orchids (*n.* 201), gathered at Banjarmassing. The flowers are admirably beautiful, produced in dense racemes as many as seven together, and are fully two inches in diameter, of a charming

yellow colour, set off in a striking manner by six red lines on the lip, bearing long crimson fringes. The *stem* is upright, about a foot long, covered with black, which also occurs on the under side of the leaves in the shape of fine down.

The species is evidently an ally of *D. formosum*, of which it has the habit, but is slenderer, and has an entirely different flower in structure as well as colour. Probably it will eventually be stationed next the rare *Dendrobium Infundibulum*, found in Moulmein by Thomas Lobb, but of which the colour of the flowers is unknown." *Lindl. l. c.*

Fig. 1. Column, lip, and spur;—*magnified.*

Tab. 5304.

ANGURIA Warscewiczii.

Warscewicz's Anguria.

Nat. Ord. Cucurbitaceæ.—Diœcia Diandria.

Gen. Char. Flores dioici. Masc. *Calyx* tubo campanulato, ventricoso; *limbo* 5-partito. *Corolla* imo calyci adnatim inserta; *limbi* liberi quinquepartiti, laciniis angustis, patentibus. *Stamina* 2, imæ corollæ inserta, libera; *filamenta* brevissima; *antheræ* biloculares; loculis linearibus, connectivi lati, mutici v. angusti, in acumen producti marginibus adnatis, rectis v. flexuosis. Fœm. *Calyx* tubo cum ovario connato; *limbo* supero, campanulato, 5-fido. *Corolla* maris. *Stamina* 2, sterilia. *Ovarium* inferum. *Stylus* bifidus; *stigmata* bipartita. *Bacca* oblongo-subtetragona, bi-quadrilocularis, polysperma. *Semina* . . . —Herbæ *Americanæ tropicæ*; radice *crassa, verrucosa*; foliis *alternis, petiolatis, cordatis, integris vel pedatisectis*; cirrhis *simplicibus*; pedunculis *axillaribus*; masculis *elongatis, racemosis*; fœmineis *unifloris. Endl.*

Anguriæ (§ Euanguria) *Warscewiczii*; foliis petiolatis cordatis trifoliolatis, foliolis petiolulatis, lateralibus subsemihastatis medio obovato-oblongo omnibus brevi-acuminatis angulato-sinuatis, pedunculis masculinis folio (cum petiolo) duplo longioribus, floribus spicatis, calyce viridi cylindraceo, limbi lobis crassis glanduliformibus, petalis pulcherrime rubro-aurantiacis, staminibus 2.

Anguria Warscewiczii. *Hort.*

Although we are at present only acquainted with the male plant of this species of *Anguria*, we gladly figure it, and recommend it as well deserving of cultivation on the rafters of a warm stove, where it produces its brilliant scarlet flowers in the middle of winter. At least it has been so with our plant, in December. It is a perfectly new, and as far as I yet know an undescribed, species of the little-known Cucurbitaceous genus, *Anguria*. We received it, under the name here adopted, from Mr. Henderson, St. John's Wood Nursery. It is most likely one of the many interesting plants introduced into European gardens by Mr. Linden, and was no doubt collected by Warscewicz; but where I have no means of knowing. My Herbarium, however, possesses native specimens recently sent me by my valued botanical correspondent, Sutton Hayes, Esq., who gathered it in

Panama, near the Barbacoos station of the Panama Railway, in May, 1861. It is readily distinguished from all the other species of the genus, of which thirty-eight are described by Schlechtendal in the twenty-fourth volume of the Linnæa, by the ternate leaves, the cylindrical calyx of the male flowers, its glanduliform lobes, and the spreading orbicular petals, which are of a rich scarlet colour.

Fig. 1. Flower with petals unexpanded, showing the thickened lobes of the calyx. 2. Flower laid open, showing the two stamens :—*magnified*.

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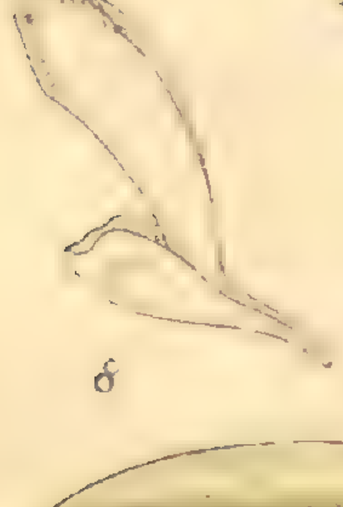

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Tab. 5305.

PHYSURUS maculatus.

Spotted Physurus.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala subæqualia, herbacea, lateralia labello supposita. *Petala* subæqualia, sepalo dorsali agglutinata. *Labellum* anticum, cum columna parallelum, concavum, sub apice dilatato sæpe lunato constrictum, basi *calcare* brevi libero sæpe ventricoso auctum. *Columna* libera v. basi tantum labello leviter accreta; *rostello* demum membranaceo-bipartito. *Anthera* dorsalis, apiculata, bilocularis. *Pollinia* 2, sectilia, *glandulæ* ovali adnata.—Herbæ *terrestres*, *caulescentes*, radicibus *filiformibus succulentis*. Folia *basi laxe vaginata*, *petiolata*, *nervosa*. Flores *dense racemosi*. *Lindl.*

Physurus *maculatus;* radicis fibris crassis longis teretibus carnosis, foliis lanceolatis discoloribus supra viridibus seriatim albo-maculatis, vaginis arcte appressis, spica densiflora, bracteis latissime ovatis breviacuminatis, labello lanceolato medio constricto basi concava apice ovato-acuminato recurvato, calcare longitudine perianthii obtusissimo.

Living plants of this new and pretty species of *Physurus* were brought to England by Mr. Cross, on his return from his mission to Ecuador for the purpose of procuring seeds and plants of *Cinchona succirubra* for cultivation in India, on account of the Indian Government. Flowering specimens were sent to us in November, 1861, by Mr. Osborne,* of the Fulham Nursery. Fifteen species of this genus are described by Dr. Lindley in his 'Genera and Species of Orchideous Plants,' and another species has been published in our 'Icones Plantarum' (vol. v. t. 449), *Physurus vaginatus* from Guatemala. To this probably our present one is most nearly allied, but abundantly distinct, for that has oblongo-ovate leaves, and remarkably inflated sheaths surrounding the stem. The spotting of the foliage is peculiar in our plant, but may not be constant.

Descr. Terrestrial. *Roots* consisting of stout, vermicular, long fleshy fibres, sometimes downy at the apices. *Stem* erect, about

* At Tab. 5259, under *Lepanthes calodictyon*, *for* "Mr. Osborne of Clapham Nursery," *read* Mr. Osborne of the Fulham Nursery.

a span high, terete, leafy. *Leaves* remote, two and a half inches long (in the blade), petiolate, dark-coppery-green above, with two series of white oblong spots lying parallel with the costa, and two shorter lines of the same at the base, beneath greyish-white; *petioles* sheathing at the base; *sheaths* rather short, close-pressed to the stem. *Spike* of many close-placed whitish small *flowers*, each of which is subtended by a broad-ovate, acuminated *bractea*, scarcely the length of the *ovary*. *Sepals* ovato-lanceolate, the dorsal one agglutinated to the petals, which are similar in form and size. *Spur* about as long as the rest of the flower, very obtuse. *Labellum* longer than the sepals, much constricted near the middle, the lower half ventricose, the upper half ovate, much acuminated, reflexed. *Column* short. *Pollen-masses* attached to a large two-lobed *gland*.

Fig. 1. Side, and, 2. Front view of a flower. 3. Side, and, 4. Front view of the lip and spur. 5. Front, and, 6. Side view of the column. 6 and 7. Side and front view of the pollen-mass:—*all more or less magnified.* (Our artist has, we fear erroneously, represented the pollen-masses as fringed at the apex.)

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W. Fitch del. et lith.

Vincent Brooks Imp.

Tab. 5306.

CEROPEGIA Gardneri.

Mr. Gardner's Ceropegia.

Nat. Ord. Asclepiadeæ.—Pentandria Digynia.

Gen. Char. Calyx quinquepartitus. *Corolla* tubulosa, basi magis minusve ventricosa, subinfundibuliformis; *limbi* laciniis compressis, ligulatis, erectis, sæpius arcuatis apiceque cohærentibus, haud raro ciliolatis; præfloratione valvata. *Corona staminea* duplici serie campanulata vel rotata, 5–15-lobata; lobis antheris antepositis sæpius longioribus, ligulatis, apice sæpissime approximatis, conniventibus. *Antheræ* apice simplices, membrana destitutæ. *Massæ pollinis* erectæ, rotundatæ, margine interiore pellucidæ. *Stigma* muticum. *Folliculi* cylindracei, læves, pergamacei. *Semina* comosa.—Suffrutices *vel potius* herbæ *perennes*, *Indicæ*. *De Cand.*

Ceropegia *Gardneri;* volubilis glabra, foliis lanceolatis acuminatis, pedunculis petiolo subæquilongis paucifloris, calycis lobis linearibus, corolla ad tubi basin parum inflata supra medium subito valde ampliata apice aperte 5-crumenata margine ciliata, coronæ stamineæ lobis exterioribus linearibus acutis, interioribus multo longioribus latioribusque et apice reflexis, folliculis longiusculis teretibus. *Thw.*

Ceropegia Gardneri. *Thwaites, Enum. Plant. Zeyl. p.* 199.

A native of Ceylon, introduced by the Messrs. Veitch and Sons to their Nurseries at Exeter and Chelsea, and undoubtedly the *C. Gardneri* of our friend Mr. Thwaites's valuable 'Enumeratio,' above quoted. It was first detected by Mr. Gardner (whose name it bears), at Rambaddo, at an elevation of from 4000 to 5000 feet, and it well deserves a place in our collections. Mr. Thwaites aptly compares it with the *Ceropegia elegans* of Wallich, from the Nilgherries, figured at our Tab. 3015 of this work; but a slight glance at that figure will serve to justify Mr. Thwaites in his further remark, that "it can scarcely be a variety of it." It is indeed infinitely more ornamental than that, with larger leaves and larger flowers, twice the size of those of *elegans*. In the state of the bud there is a most striking difference when the lobes of the corolla are folded in, in a very remarkable manner, so as to present five spreading lobes like the lobes of a star-fish, or still more like the expanded corolla of a *Stapelia*. Then again, in the fully-developed corolla (we can hardly say *expanded*,

for the lobes continue to adhere at the apices), the inflected segments take a broad heart-shaped form, the sides near the apex being reflected and forming the only opening into the tube. The colour is much brighter, and the hairs, so very abundant and conspicuous in *elegans* on the corolline lobes, are here few and very indistinct.

Fig. 1. The staminal crown. 2. The pistils :—*magnified.*

5307.

Vincent Brooks Imp.

BEGONIA PRISMATOCARPA.

Prism-fruited Begonia.

Nat. Ord. Begoniaceæ.—Monœcia Polyandria.

Gen. Char. (*Vide supra*, Tab. 4172.)

Begonia *prismatocarpa;* herbacea humilis, caulibus teretibus repentibus pilosis, ramis ascendentibus, stipulis ovatis acutis membranaceis fimbriatis, foliis longe petiolatis oblique cordato-ovatis subpalmato-lobatis, lobis acuminatis inæqualiter serratis hinc latioribus, petiolis teretibus pilosis, pedunculis axillaribus pilosis petiolo longioribus umbellatim bi-trifloris, umbella bracteis duabus stipulæformibus, floribus dipetalis, masculis staminibus monadelphis, antheris lineari-cuneiformibus, filamento perbrevi, capsula (immatura) elongata lineari-oblonga quadrangulari vix alata angulis æqualibus 4-loculari, stylo profunde 4-partito, stigmatibus capitatis pubescentibus.

If this is wanting in floral beauty, it is nevertheless a very interesting plant, a *Begonia* with an elongated, four-celled, four-sided capsule, a quadripartite style, and capitate stigmas. It is discovered by Mr. Gustav Mann in Fernando Po. It will probably constitute a new genus among *Begoniaceæ* with M. Alphonse de Candolle, who has already alluded to some imperfect specimens of the plant in his valuable 'Mémoire sur la Famille des Begoniacées,' in the eleventh volume of the 'Annales des Sciences Naturelles' (quatrième série, Botan.): "L'Herbier de Sir W. J. Hooker m'a fait connaître une espèce de Fernando Po, trop incomplète dans la collection pour qu'on pût la décrire, et qui semble un genre ou une section très-distincte, remarquable par un ovaire étroit et allongé, analogue à celui des *Prismatocarpus*." It is one of the many interesting new plants we have lately received through our collector from the mountain regions of tropical Western Africa. It flowered in the stove at Kew in December, 1861. Its locality was rocks and trees at an elevation of 3000 feet above the sea-level.

Descr. The *plant* is small and insignificant-looking; it has creeping, herbaceous, rounded, hairy *stems* and ascending *branches*. *Leaves* on long petioles, also hairy, the largest of

them scarcely two inches in length, obliquely cordato-ovate, subpalmately three to five lobed, but the lobes are much larger on one side than the other, acuminate, coarsely and unequally, but sharply and submucronately serrated. *Stipules* small, ovate, fimbriated. *Peduncle* axillary, solitary, longer than the petiole, bearing a small imperfect *umbel* of two to four dipetalous *flowers*. *Petals* ovate, yellow, with a tinge of orange towards the base. *Male flower* pedicellate, with a cluster of many *stamens* borne upon a short stalk (hence monadelphous), all inclined to one side. *Filament* very short. *Anther* linear-cuneate, most of it made up of the *connectivum*, yellow. *Female flower* sessile, apparently one to each umbel. *Ovary* or immature *fruit* linear-oblong, tetragonal, a little attenuated upwards; the four angles are prominent, but scarcely form wings, and these angles are equal, four-celled, with numerous ovules attached to the four central receptacles. *Style* short, soon dividing into four erecto-patent branches, each crowned with a large capitate downy *stigma*.

Fig. 1. Stamens from the male flower, the petals being removed. 2. Single stamen. 3. Female flower (or immature fruit), the petals only removed. 4. Transverse section of the capsule:—*all magnified.*

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W. Fitch, del. et lith

Vincent Brooks Imp.

Tab. 5308.

SCILLA Berthelotii.

Berthelot's Squill.

Nat. Ord. Liliaceæ.—Hexandria Monogynia.

Gen. Char. Perigonium corollinum, sex-partitum, campanulatum, rotato-patens. *Stamina* 6, perigonii laciniis basi inserta; *filamenta* æqualia, subulata. *Ovarium* 3-loculare. *Ovula* in loculis plurima, biseriata, horizontalia, anatropa. *Stylus* filiformis, rectus; *stigma* obtusum. *Capsula* obtuse trigona, 3-locularis, loulicido-trivalvis. *Semina* in loculis pauca, horizontalia, subglobosa; *testa* crustacea, juxta raphen incrassata, atra v. pallescente-fusca. *Embryo* axilis, dimidii albuminis longitudine, extremitate radiculari umbilico parallele contigua.—Herbæ *bulbosæ, in Europa media, in regione Mediterranea et Capite Bonæ Spei obviæ;* racemo *laxo scapum terminante*, pedicellis *bracteatis*, floribus *albis v. cæruleis*. *Endl.*

Scilla *Berthelotii;* bulbo oblongo fusco, foliis 2–3 linearibus acuminatis glabris caulem ad tertiam partem vaginantibus scapo brevioribus, spica gracili, pedicellis inferioribus remotiusculis bracteis setaceis sublongioribus, perigonii exigui laciniis lineari-lanceolatis, apice incrassato-glandulosis stamina excedentibus. *Webb.*

Scilla Berthelotii. *Webb, Phytogr. Canar. sect.* iii. *p.* 337. *t.* 232.

A plant of the genus *Scilla* was so little expected by us from a country within the Tropics, and only four degrees from the Equator, that when the present plant, which had been sent to us by our zealous collector Mr. Gustav Mann, from the Cameroons River, tropical Africa, in 1861, flowered in our stove the latter end of the same year, I thought, unornamental as the plant is, it deserved a place in the 'Botanical Magazine' on account of its locality. I little expected, however, to find that it was no new plant, but one already described in the Canary Island Flora of Messrs. Webb and Berthelot, in which country it grows ("in rupestribus maritimis humidiusculis Teneriffæ"), accompanied by the remark on its geographical distribution, "Planta est ex toto Canariensis." But here it appears at a distance of twenty-four degrees of latitude and twenty-seven of longitude from Teneriffe. I am, however, still rather puzzled whether to refer

the species to the *S. Berthelotii* of the Canarian Flora or the *S. dasyantha* of the same work; for I can see no valid difference between the two (and both are figured), save that the former has three leaves, the latter only two.

Descr. The *bulb* is oblong-ovate, with a coat of which the upper part forms a short sheath around the base of the leaves, sending out long *radicles*, thick, white, and fleshy. *Leaves* three, lanceolate or linear-lanceolate, tapering towards the base, and there sheathing each other and the base of the scape. *Scape* rather slender, terete, solitary, a span to a foot long, bearing a lax raceme of small insignificant whitish *flowers*. *Bracts* small, subulate. *Pedicels* very short. *Petals* narrow-oblong, concave, callous at the tips. *Stamens* rather shorter than the petals. *Ovary* subglobose, but having three broad obtuse lobes. *Style* about as long as the germen. *Capsules* with two seeds in each cell.

Fig. 1. Expanded flower. 2. Pistil:—*magnified.*

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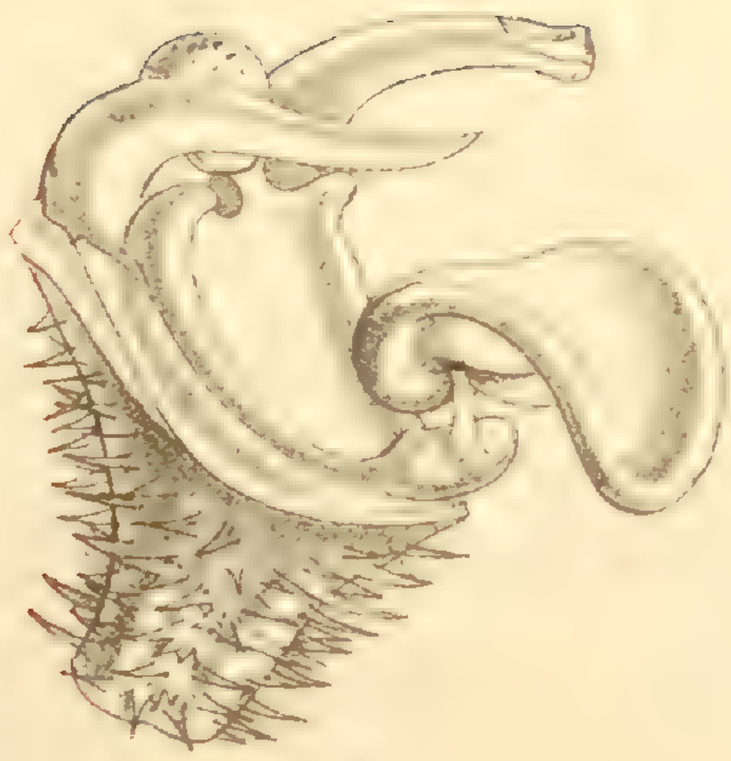

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W. Fitch, del. et lith.

Vincent Brooks, Imp.

BOLBOPHYLLUM Rhizophoræ.

Mangrove Bolbophyllum.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala erecta, acuminata, subæqualia, lateralibus cum pede columnæ connatis et basi obliquis. *Petala* nana (rarissime sepalis subæqualia). *Labellum* cum pede columnæ articulatum, unguiculatum, sæpius integrum, et posticum. *Columna* nana, antice bidentata v. bicornis. *Anthera* 1- v. bilocularis. *Pollinia* 4, libera, valde inæqualia, nunc in uno connata, nunc per paria cohærentia, altero cujusve paris minuto lobuliformi.—Herbæ *epiphytæ*, rhizomate *repente pseudobulbifero*. Folia *coriacea, avenia*. Racemi *radicales. Lindl.*

Bolbophyllum *Rhizophoræ;* pseudobulbis ovatis diphyllis, foliis oblongis conduplicatis obtusis, spicis multifloris pendulis, bracteis subrotundo-ovatis reflexis margine membranaceis, rachi floribusque scabris, sepalo dorsali lineari-lateralibus intus pubescentibus subrotundis cuspidatis multo longiore, petalis linearibus angustissimis glabris apice setaceis, labello lineari intus villoso sub apice mucronulato. *Lindl.*

Bolbophyllum Rhizophoræ. *Lindl. in Journ. Proc. Linn. Soc. v.* 6. *p.* 124.

A very lovely little plant, if minutely examined as the structure of the flowers entitles it to be. It was found growing on Mangroves in the Nun River, by Mr. Barter, late Botanist to the Niger Expedition under Commander Baikie, when living plants were sent to Kew, and again by Mr. Gustav Mann, in 1860, from the same river. These plants have flowered with us both in April and in October of 1861.

Descr. *Plant* small. *Pseudobulbs* scarcely an inch long, ovate, thickly clustered, each bearing two oblong-lanceolate obtuse or retuse *leaves*, tapering at the base, scarcely conduplicate, except in the dried state. *Scape* or *peduncle* from the base of the pseudobulbs, short, terminated by a slender, flexuose, drooping *pikes* of many small subsecund *flowers*. *Rachis* granulated with small tubercles. *Bracts* broadly ovate, at the base of the sessile ovary, reflexed. *Perianth* externally muricated, as well as the ovary, superior or dorsal *sepal* erect, purplish-brown, yellow-

ish at the base within, erect, oblong, larger than the lateral sepals, which are reflexed and bright red-purple on the upper side. *Petals* lineari-subulate, curved forward, white. *Lip* much smaller than the sepals, articulated upon a stalk, oblong-ovate, obtuse, reflexed, deep-purple. *Column* short, with a tooth on each side below the anther-case. *Pollen-mass* oval, subrotund, double.

Fig. 1. Flower and portion of the rachis. 2. Front view of a flower. 3. Flower from which the sepals have been removed. 4. Pollen-masses :—*all more or less magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5310.

CLOMENOCOMA montana.

Mountain Clomenocoma.

Nat. Ord. Compositæ.—Syngenesia Superflua.

Gen. Char. Capitulum multiflorum, radiatum; *ligulis* uniserialibus, fœmineis: *floribus disci* tubulosis, quinque-dentatis, hermaphroditis. *Involucrum* imbricatum; *squamis* linearibus, imbricatis, dorso versus apicem glandulam grossam gerentibus. *Receptaculum* tenuiter fibrilliferum. *Achenium* elongatum, multistriatum; glabriusculum. *Pappus* squamellis 10, uniseriatis, basi polyadelphis, superne lineari-setæformibus.—Herbæ *Austro-Americanæ*, Tageti *facie*. Folia *opposita*, *pinnatisecta*. Capitula *terminalia*, *pedunculata*, *solitaria*. Flores *aurantiaci*. *De Cand.*

Clomenocoma *montana;* foliis ovatis acutis serratis basi cuneatis integris v. inciso-lobatis, petiolo basi lobulis setæformibus aucto, involucri squamis obtusis fimbriatis. *Benth.*

Clomenocoma montana. *Benth. Plant. Hartweg. pp.* 86, 351.

Dysodia grandiflora? *De Cand. Prodr. v.* 5. *p.* 640 *(fide Benth.)*.

We owe the opportunity of figuring this plant to Messrs. Henderson, who received it under the name of "*Hebeclinium aurantiacum;*" but Mr. Bentham has recognized it as his *Clomenocoma montana*, a native of Guatemala, whence we possess specimens both from Mr. Skinner and from Mr. Hartweg. The name *Clomenocoma* was doubtless given by Cassini to the genus on account of the resemblance of the flowers to those of the *Marigold*, κλόμενον in Greek. The colour of the flower is very rich, and it may prove to be a valuable summer bedding-out plant.

Descr. The *root* appears to be perennial. The *stems* herbaceous, scarcely branched, except towards the summit, where they divide into *peduncles;* erect, one to two feet high, nearly glabrous. *Leaves* opposite, ovate, or rather ovato-lanceolate, acuminate, inciso-serrate, petiolate, marked with black glandular dots, most numerous beneath; on the petiole are four to six linear-lanceolate segments or small narrow *leaflets*, ending in a setiform point. *Peduncles* axillary and terminal, each with a pair of diminutive leaves or *bracts*. *Head of flowers* large, handsome. *Involucre*

urceolato-cylindrical, consisting of one series of linear-oblong erect *scales*, erose at the apex, and a few smaller external ones, lanceolato-subulate, all with black glandular streaks. *Receptacle* fibrillose. *Florets* all of a rich deep-orange colour.

Fig. 1. Apex of a peduncle and involucre. 2. Floret of the circumference, with fibrillæ. 3. Floret of the disk, with fibrillæ. 4. Hair of the pappus:— *magnified.*

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Tab. 5311.

RHODODENDRON ARBOREUM, *Sm.*, var. *limbatum*.

Tree Rhododendron, broad-zoned var.

Nat. Ord. Ericeæ.—Diandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 3825.)

Rhododendron *arboreum ;* caule arboreo, foliis lanceolatis utrinque acuminatis coriaceis supra glabris subtus discoloribus (argenteis ferrugineisve), corymbis confertifloris, calycis limbo obsoleto, corolla late campanulata 5-loba, staminibus 10, ovario 10-loculari.

Rhododendron arboreum. *Smith, Exot. Bot. t.* 9. Tab. Nostr. (*varietatibus inclusis*) 3290, 3825.

Var. *limbatum ;* foliis anguste lanceolatis subtus argenteis, corollæ limbo late roseo, tubo intus albo ima basi macula sanguinea notato.

Of all the varieties of these well-known and variable Tree Rhododendrons of the Himalaya, none is better worth cultivation than this, whether for its early free-flowering habit or the exquisite delicacy of the broad rose-coloured limb of the corolla, which gradually fades into the almost pure white throat, marked at the base with a deep blood-red blotch. The nearest variety to this is undoubtedly the *arboreum* var. *roseum*, *Don*, *Prod. Flor. Nep. p.* 154, first figured by Dr. Lindley, in the 'Botanical Register,' t. 1240, and again in Sweet's 'British Flower Garden,' vii. t. 339, but in that the colour is more uniform, that of the limb being paler than the throat, and the leaves have a little brown tomentum underneath.

Our plant was raised from seeds sent by Dr. Hooker from the Sikkim Himalaya in 1848–9, and flowered in a cool conservatory.

Fig. 1. Flowers. 2. Stamen. 3. Ovary. 4. Transverse section of ditto: —*all more or less magnified.*

May 1st, 1862.

W Fitch del. et lith.

Vincent Brooks Imp

Tab. 5312.

LIMATODES rosea.

Rose-coloured Limatodes.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. *Perianthium* erecto-patens, subæquale, liberum. *Labellum* liberum, divisum, calcaratum; limbo interno tumido. *Columna* erecta, semiteres. *Anthera* bilocularis; loculis subquadrilocellatis. *Pollinia* 8, obovata, caudicula brevi filiformi, *glandula* minuta.—Herbæ *terrestres*. Caules *basi tumidi*. Folia *lato-lanceolata, nervosa, membranacea*. Pedunculi *laterales, solitarii, pauciflori*. Flores *albi vel rosei. Lindl. (Char. ex Blume.)*

Limatodes *rosea;* pseudobulbis fusiformibus, foliis oblongo-lanceolatis plicatis glabris, scapo multifloro foliis longiore floribusque laxis villosis, bracteis membranaceis recurvis ovario brevioribus, labello oblongo plano retuso, calcare recto obtuso horizontali, columna nana tomentosa. *Lindl.*

Limatodes rosea. *Lindl. in Paxton's Fl. Gard. t.* 81.

A very lovely plant, and much prized in collections. We are enabled to figure it through the kindness of Messrs. Low and Son, of the Clapton Nursery, who lately received plants from the Rev. C. S. P. Parish, of Moulmein, where however it was some years before brought into notice by Mr. Thomas Lobb, collector for the Messrs. Veitch, and a figure of it appeared in Paxton's 'Flower Garden,' above quoted. The genus *Limatodes* was established by Blume upon a Java species from Mount Salak, the *L. pauciflora*, and a third species is described by Dr. Lindley, a native of the Mishmee hills, in Griffith's Herbarium. The present species seems to be a ready flowerer. In the case of our specimen the flowers appeared from the base of an old pseudobulb without any leaves.

Fig. 1 represents a pedicel with the lip and spur. 2. Side view of the column, spur, and ovary. 3. Front view of the column and anther. 4. Pollen-masses:—*magnified.*

May 1st, 1862.

1.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5313.

CLERODENDRON Thomsonæ.

Mrs. Thomson's Clerodendron.

Nat. Ord. Verbenaceæ.—Didynamia Angiospermia.

Gen. Char. Calyx campanulatus, rarius tubulosus, interdum pentagonus et subinflatus, 5-fidus v. quinquedentatus, rarissime truncatus. *Corolla* infundibularis vel subhypocraterimorpha; tubo sæpissime calycem excedente, interdum longissimo; *limbo* quinquepartito laciniis superioribus paulo magis approximatis, subinæquali vel laciniis inferioribus magis minusve adscendentibus obliquo immo subsecundo. *Stamina* 4, corollæ tubo inserta, longe exserta, subdidyma; *antheræ* supra basin insertæ, basi fissæ, biloculares, *loculis* parallelis, rima longitudinali dehiscentibus. *Ovarium* quadriloculare, loculis uniovulatis; *ovulo* in spermophoro angulo centrali adnato pendulo. *Stylus* filiformis, exsertus; *stigmate* bifido, acuto. *Drupa* calyci ampliato insidens vel inclusa, baccata v. carnosa, quadri- vel sæpius abortu mono-di-tripyrena, sæpius 2–4-loba; *pyrenis* maturitate distinctis, unilocularibus; *putamine* lignoso lævi. *Semen* solitarium, erectum. *Cotyledones* oleosæ, applicatæ; *radicula* brevis, infera.—Frutices *vel* arbores, *inter tropicos veteris orbis imprimis vero Asiæ copiosæ, in* America *vero parce crescentes.* Folia *opposita vel terna, simplicia, integra vel rarius lobata,* phyllopodio *interdum prominenti insidentia.* Cymæ *trichotomæ vel axillares, vel in paniculam terminalem collectæ. Schauer, in De Cand.*

Clerodendron *Thomsonæ;* caule volubili glabro, foliis oppositis brevi-petiolatis integris oblongo-ovatis acutis glabris, venis superne sulcatis, panicula axillari et terminali, cymis dichotomis laxifloris bracteatis, calyce albo membranaceo inflato pentagono 5-partito, laciniis ovatis acutis, corolla coccinea, tubo gracili extus glanduloso-pubescente calycem æquante, limbo oblique 5-lobato, staminibus longissime exsertis. *Balf.*

Clerodendron Thomsonæ. *Balf. in Edinb. New Phil. Journ. N.S. p.* 1. *v.* 15. *t.* 2.

From the stove of the Botanic Gardens of Edinburgh, whence we received specimens from Professor Balfour in January of the present year, 1862, to whom the living plant was communicated in 1861, by the Rev. W. C. Thomson, missionary at Old Calabar, on the West Coast of Tropical Africa. The specific name is given in memory of that gentleman's wife, the late Mrs. Thomson. It flowered in the stove at Edinburgh, the branches twining extensively round other plants or prostrate and rooting.

May 1st, 1862.

We have only seen the cut specimen; but no doubt Dr. Balfour says very correctly that it "has a very showy appearance in the conservatory, twining along the roof of the house to the extent of ten or twelve feet, and giving off numerous clusters of flowers; and the contrast of colour presented by its (large) white calyx and crimson corolla renders it a desirable plant for cultivation."

Mr. Thomson met with it growing abundantly on the banks of the Old Calabar River, above salt-water range. I may add that the same species has been detected by Mr. Barter, late botanist to Baikie's Niger Expedition, at Angiama, on the Quorra; and very fine native specimens are deposited in the Herbarium at Kew.

Fig. 1. Pistil,—*magnified.*

W. Fitch del. et lith.

Vincent Brooks, Imp.

HÆMANTHUS CINNABARINUS.

Cinnabar-coloured Hæmanthus.

Nat. Ord. Amaryllidaceæ.—Hexandria Monogynia.

Gen. Char. Perigonium superum corollaceum, *limbo* 6-partito, regulari, deciduo; *tubo* recto; *laciniis* angustis, 1–3-nerviis, æqualibus, erectis vel stellato-patentibus. *Stamina* 6, summo tubo inserta, exserta, alterna (petalina?) longiora. *Filamenta* filiformia. *Antheræ* oblongæ, utrinque bifidæ, dorso supra basin affixæ. Ovarium inferum, triloculare; *ovula* in loculis solitaria vel gemina, collateralia, pendula (pauca e loculorum angulo centrali adscendentia vel pendula, *Endl.*), anatropa. *Columna* stylina filiformis, recta. *Stigma* simplex, obsolete trilobum vel trifidum. Bacca globosa vel oblonga, abortu 1–trilocularis. Semina in loculis solitaria, loculum replentia; *testa* membranacea, adnata; *raphe* immersa; *hilum* basilare, chalazæ apicali discolori jungens. *Embryo* minimus, in basi albuminis dense carnosi; extremitate radiculari hilum attingente.—Herbæ, *paucis Africanis tropicis exceptis, Capenses, bulbiferæ, scapigeræ, glabræ vel pubescentes;* bulbo *tunicato, sæpius bifariam squamoso;* folia *pauca, sæpius bina, coriacea, crassiuscula, plerumque plana orbiculata erecta vel humistrata, rarius angusta elongata canaliculata, rarissime petiolata, oblonga,* petiolis *vaginantibus.* Scapus *brevis, solidus, plerumque compressus, basi sæpe bracteis duabus radicalibus interdum coloratis stipatus, multiflorus.* Spatha *utplurimum polyphylla;* foliolis *erectis, coloratis, umbella longioribus, rarius diphylla vel reflexa. Kth. ex Endl.*

Hæmanthus *cinnabarinus;* foliis paucis omnibus inferioribus seu subradicalibus ovali-oblongis longitudinaliter multinerviis, costa crassa subtus prominente, limbo in petiolum subvaginantem decurrente, scapo cylindraceo umbellatim multifloro, bractea communi florem involucrante et multiseriata, pedicellis singulis bracteola lineari stipatis primo erectis mox patulis aut etiam reflexis, perianthii lobis subæqualibus oblongis, ut stamina filamenta rigida stylusque cinnabarinis. *Dcne.*

Hæmanthus cinnabarinus. *Desv. in Flore des Serres, 2nd Series, v. 2. p. 27.*

Drawn from bulbs sent by M. Gustav Mann to the Royal Gardens, from Ambas Bay, at the foot of the Cameroon mountains, in Western tropical America. There can be no question of the plant being identical with the *Hæmanthus cinnabarinus* of Professor Decaisne, in the 'Flore des Serres' above quoted, who considers it a new species; but, were it not for such high authority, we should have been disposed to have looked upon it as a remarkable state of *Hæmanthus multiflorus.** But there

* See Bot. Mag. vol. 24. t. 261, and vol. 45. t. 1995.

is this remarkable difference :—in both the *scape* rises from the bulb, nearly simultaneously with the foliage; in *H. multiflorus* it springs laterally from the outside of the cluster of leaves; in our plant, as in that of Decaisne, the scape forms the axis or centre of the plant, and is surrounded by the sheathing base of the leaves. These leaves externally (below) gradually become sheathing scales, more or less tinged with purple, and which form a kind of stem. I really can point out no other difference.

Fig. 1. Section of the perianth. 2. Section of the ovary :—*slightly magnified.*

W Fitch, del. et lith.

Vincent Brooks, Imp

Tab. 5315.

HELICONIA METALLICA.

Metallic-leaved Heliconia.

Nat. Ord. Musaceæ.—Pentandria Monogynia.

Gen. Char. Perigonii epigyni *foliola* exteriora æqualia, basi inter se concrescentia, interiora lateralia subconformia approximata, genitalia amplectentia, posticum nanum. *Stamina* 5, sexto postico abortiente, basi perigonii adnata. *Ovarium* inferum, triloculare. *Ovula* in loculis solitaria, e basi axeos adscendentia, anatropa. *Stylus* filiformis; *stigma* depressiusculum, obsolete trilobum. *Capsula* subdrupacea, tricocca; coccis osseis, indehiscentibus. Semina in *coccis* solitaria, obovato-subglobosa, basifixa; *testa* ab endocarpio vix solubili. *Embryo* orthotropus, linearis, in axi albuminis farinaceo-carnosi, extremitate radiculari umbilicum attingente, infera.—Herbæ *Americanæ tropicæ;* foliis *longe petiolatis;* petiolis *basi vaginantibus*, scapum radicalem *sæpe velantibus;* spathis *pluribus distichis*, *in axilla floriferis. Endl.*

Heliconia *metallica;* elata gracilis 6–8-pedalis, foliis sesqui–bi-pedalibus oblongis acuminatis supra velutino-viridibus subtus purpureo-metallicis, spica erecta, spathis remotiusculis uni–trifloris, floribus subcylindraceo-angulatis curvatis falcatis coccineis, sepalorum apicibus acuminatis albis erecto-patentibus, petalo nano ovato obtusiusculo.

Heliconia metallica. *Planch. and Linden, Cat.* 1856, *n.* 11 (*name only, no descriptive character or remarks*).

Roots of this fine species of *Heliconia* were sent to us by Mr. Linden, and M. Schlim is recorded as the discoverer, in the wet shady gorges at the foot of the Sierra Nevada of Santa Martha. It is to be regretted that Messrs. Planchon and Linden, as far as we can find at least, have nowhere published any figure or description of this plant, and, though we feel ourselves by no means called upon to perpetuate such names, yet in the present case we think it better to do so than to create confusion by needlessly increasing the number of names and synonyms. It requires the heat of a warm stove to induce the flowering of this plant.

Descr. This is perhaps the most graceful of all the species of *Heliconia* known to us. It resembles a very slender *Musa* in its foliage, and is six to eight feet high: the *stem*-portion, if it may be

so called, is formed of large sheathing green scales, having a long slender point. The *leaves*, three to four, are quite at the summit, and are from one and a half to two feet and more long, oblong, gradually acuminate, of a rich deep velvety green above, beneath of a coppery metallic-purple colour, which suggested the name of *metallica* to Messrs. Planchon and Linden. The *spike* of flowers is terminal, erect, about a span long, consisting of about six large green spear-shaped but conduplicate, bluntly caricated *bracteas* or *spathes*, the lowest one with three flowers in the axil, the rest with two or one. *Pedicels* one to one-and-a-half inch long, green, erect. *Flowers* large, handsome, three inches long, cylindrical, slightly angular, and a little curved; the three *sepals* or outer portions of the perianth approximate and slightly conjoined, scarlet, the acuminated apices only free, white, erecto-patent. The two perfect *petals* are scarlet to the apex and are convolute around the stamens and style: the third, or dwarfed *petal* is a small, white, ovate scale. *Stamens* five. *Filaments* subfusiform, terminated by long, linear, white, or subsagittiform *anthers*; *style* very much resembling a filament of the stamens, but acute.

Fig. 1. Upper portion of an ovary, with style and five stamens,—*magnified*.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

TAB. 5316.

BOLBOPHYLLUM CUPREUM.

Copper-coloured Bolbophyllum.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. (*Vide supra*, TAB. 5288.)

BOLBOPHYLLUM *cupreum;* folio angusto solitario scapo longiore, racemo brevi oblongo nutante, petalis setacco-acuminatis serrulatis, labello ovato dente utrinque setaceo, columnæ angulis aristatis. *Lindl.*

BOLBOPHYLLUM cupreum. *Lindl. in Bot. Reg. v.* 24. 1838, *Misc. p.* 95.

Figured from a flowering-plant in the Royal Gardens of Kew, in 1861. Dr. Lindley drew up his specific character from a plant imported by Messrs. Loddiges, through Mr. Cuming, from Manilla, whereas our specimen is stated to come from Arracan. The flowers, he observes, are copper-coloured, thence the name (*cupreum*), and have a smell extremely like Valerian-root. Many of the small-flowered *Orchideæ* are remarkable for the singularity of their structure, as seen under a microscope; and such is the case with the present species.

DESCR. *Pseudo-bulbs* ovato-subrotund, compressed, green, fleshy, glabrous, and perfectly smooth on the surface. Several of these are attached to a creeping, rooting, scaly *caudex*, about the thickness of the quill of a writing-pen; often subtended by large, lanceolated, membranaceous, closely-pressed scales. Each pseudo-bulb bears on its summit a solitary, oblong, coriaceous *leaf*, about a span long. At the very base of a pseudo-bulb arises the curved *scape*, three to four inches long, clothed for its whole length with large, lax, sheathing, membranaceous scales. *Spike* about as long as the scape, cylindrical, drooping, of an orange-copper colour, consisting of closely-placed, imbricated *flowers*, each flower subtended by a lanceolato-acuminated *bractea*, of the same colour as the flowers. *Pedicels* very short.

JUNE 1ST, 1862.

Sepals lanceolate, acuminate; lateral ones deflexed, twice as large as the superior one, and approximate. *Petals* small, from a broad base, suddenly subulate. *Lip* oblong-ligulate, shorter than the lateral sepals, almost blood-coloured, having a short gibbous spur at the base beneath; lateral lobes short, acute; intermediate one obtuse, with a sharp longitudinal lamina, or keel, on the upper side; downy at the margins. *Column* short, semicylindrical, the margin on each side terminating in a subulate lobe, extending much beyond the anther.

Fig. 1. Front view of a flower. 2. Side view of ditto, with bractea. 3. Flower, with sepals removed. 4. Front view of the lip:—*magnified*.

Vincent Brooks, Imp.

Tab. 5317.

RHODODENDRON FULGENS.

Brilliant Rhododendron.

Nat. Ord. Ericeæ.—Decandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 3825.)

Rhododendron *fulgens;* ramulis petiolis pedunculis foliisque superne glaberrimis, foliis petiolatis late obovato- v. ovato-ellipticis apice rotundatis basi cordatis margine recurvo subtus dense floccoso-tomentosis brunneis, capitulis densifloris, pedicellis brevibus, calyce obsoleto v. disciformi, corolla campanulata intense sanguinea, limbi lobis 5 rotundatis recurvis, staminibus 10 filamentis glabris, ovario conico basi turgido 6–8-loculari.

Rhododendron fulgens. *J. Hook. Sikkim Rhododendrons, t.* 25.

Of all the magnificent series of Rhododendrons which have reached us from India, none can vie in colour with the subject of the present Plate, which, from the gorgeous hue of its blossoms, received the name of *fulgens* from its discoverer, Dr. Hooker, who says of it, "This, the richest ornament of the Alpine regions (of the Sikkim-Himalaya), in the month of June forms a very prevalent shrub, on mountain slopes and spurs, at an elevation of 12,000 to 14,000 feet, flowering in June, and fruiting in November and December; not yielding in abundance to its associates, *R. æruginosum* (a variety of *lilacinum*) and *R. Maddeni*, and, like the former, putting forth young leaves of a beautiful verdigris-green colour. The foliage is perennial, of a bright-green hue, and gives a singular hue to the bleak snowy mountain-faces, immediately overhung by the perpetual snow, contrasting in August with the bright scarlet of the Barberry, the golden-yellow of the fading Birch and Mountain-Ash, the lurid green of the Juniper, and the brown of the withered grass. Whether, then, for the glorious effulgence of its blossoms, which appear to glow like fire in the few sunny hours of the regions it inhabits, or the singular tint its foliage assumes at other seasons,

it is one of the most striking plants of the inhospitable regions it inhabits.

In many respects *R. fulgens* is most closely allied to *R. campanulatum;* the chief difference, besides the colour of the blossoms, lies in the denser head of flowers, shorter pedicels, smaller corolla, and disc-shaped calyx.

The subject of the present Plate flowered in the Royal Gardens in the month of April, from plants introduced by Dr. Hooker twelve years ago. The flowers are considerably larger than in the plant figured in the 'Sikkim Rhododendrons;' but they are more numerous and crowded in the native specimens.

Fig. 1. Flower. 2. Calyx and ovary. 3. Ovary, cut transversely. 4. Stamen:—*all but fig.* 1 *magnified.*

W Fitch, del et lith.

Vincent Brooks, imp.

TAB. 5318.

PALISOTA BARTERI.

Mr. Barter's Palisota.

Nat. Ord. COMMELYNEÆ.—TRIANDRIA MONOGYNIA.

Gen. Char. Flores subirregulares. *Sepala* ovata, obtusa, impari parum majore. *Petala* sessilia, sepalis subsimilia iisque paulo longiora. *Stamina fertilia* 3, petalis opposita, difformia; duo brevia, filamentis filiformibus, anthera oblonga vix longioribus; tertium longius, filamento crasso, anthera ovata pluries longiore; *sterilia* 2 (v. rarius 3), brevia, ananthera, pilis longis articulatis dense barbata. *Ovarium* sessile, 3-loculare, loculis biseriatim 5–6-ovulatis. *Stylus* apice simplex, subpenicillato-stigmatosus. *Benth. in Hook. Niger Flora*, 544.

PALISOTA *Barteri*; acaulis, foliis omnibus radicalibus petiolatis oblongo- v. obovato-lanceolatis longe acuminatis integerrimis subsericeo-pilosis marginibus villosis, racemo brevi ovoideo densifloro.

P. Barteri. *Tab. nostr.*

One of the many discoveries of the lamented Mr. Barter, the indefatigable and most successful botanist to Dr. Baikie's Niger Expedition. The first specimens we received were found by Barter in a grove of oil-palms (*Elæis guineensis*) in Fernando Po, and it has since been gathered in the same place by M. Gustav Mann (collector for the Royal Gardens), from whom living plants were received. Both collectors describe the flower as white, which with us have a decidedly faint purple tinge.

The only other known species of *Palisota* is *P. thyrsiflora*, Benth., also a native of Fernando Po and other places in the Bight of Benin, which differs wholly in the tall stem and branched inflorescence.

DESCR. An almost stemless herbaceous plant, one to three feet high. *Leaves* springing from the root, one to two feet long, obovate-oblong or elliptic-lanceolate, narrowed at the base into a petiole of very variable length, attenuated at the apex into a long slender point; *petiole* and *lamina* more or less covered with rather silky hairs, margin villous with a soft downy edging, very

conspicuous in the dried specimens. *Peduncle* short, terminal, usually shorter than the petioles, solitary, erect, bearing an erect, oblong, dense, thyrsoid raceme of pale purplish flowers. *Sepals* and *petals* nearly equal. *Stamens* three, *staminodia* with a pencil of beaded hairs. *Ovary* covered with long hairs.

Fig. 1. Flower. 2 and 3. Stamens. 4. Staminodium. 5. Beaded hair from the same. 6. Ovary :—*all magnified.*

Vincent Brooks Imp

Tab. 5319.

ANTHURIUM Scherzerianum.

Scherzer's Anthurium.

Nat. Ord. Orontiaceæ.—Tetrandria Monogynia.

Gen. Char. *Spatha* ad basin usque explanata, herbacea, colorata, erecta patula v. refracta. *Spadix* varius. *Ovarium* septo axeos directione, loculamentis 2, v. abortu regulari uniovulatis. *Stigma* septi directionis. *Ovula* anatropa, breviter funiculata. *Baccæ* maturitate e sepalis protrusæ, varie coloratæ.—Caudex *abbreviatus v. elongatus, scandens et radicans.* Vaginæ *stipulares, oppositifoliæ, sæpe folio deficiente, bis ter superpositæ.* Petiolus *imo tumidus, brevissime vaginulatus, apice geniculatus.* Lamina *folii pseudoneuro intimo continuo, interrupto v. terminali instructa.* Pedunculi *solitarii.*—Germinatio *admotiva. Schott, Prod. Syst. Aroid. p.* 436.

Anthurium *Scherzerianum;* caudicis brevis internodiis brevibus, petiolo sulcato internodio multoties longiore, geniculo mediocri sulcato, folio elongato oblongo v. anguste lanceolato-oblongo basi obtuso v. rotundato apice longo sensim acuminato utrinque punctato, pseudoneuro a margine subremoto, pedunculo petiolis duplo longiore, spadice juliformi subcylindrico vix stipitato coccineo, spatha intense ooccinea, spadice breviore late elliptica basi rotundata apice acuto v. cuspidato.

A. Scherzerianum. *Schott, l.c.* 440.

A very singular little plant, remarkable amongst its congeners for its small size, and the brillant colour of its spadix and spathe, which are retained for some time on the plant. According to Dr. Schott, the author of the species, it was discovered in Guatemala by M. Scherzer, and afterwards found at Costa Rica by Wendland, through whom it was introduced to the Royal Gardens of Hanover, and thence sent to those of Kew, where it flowered in April of the present year.

Descr. A small plant, hardly forming a stem as yet in our houses. *Leaves* of a deep-green colour and coriaceous consistence, with a pale midrib and slender petioles. *Peduncle* longer than the petioles, the upper part as well as the whole spathe and spadix of a bright scarlet colour and shining surface. *Spathe* ovate,

about an inch long, subacute. *Spadix* rather longer than the spathe. *Sepals* four, obconic trigonous, broadly truncate at the apex. *Stamens* four; *filaments* very short and broad; *anther-cells* distinct. *Ovary* cubical, two- to four-celled.

Fig. 1. Spadix. 2. Flower. 3 and 4. Stamens. 5. Ovary. 6. Longitudinal, and 7. Transverse section of ovary :—*all magnified.*

1.

4.

3.

2

W Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5320.

OREODAPHNE Californica.

Californian Mountain-Laurel.

Nat. Ord. Laurineæ.—Enneandria Monogynia.

Gen. Char. Hermaphroditæ v. dioicæ v. polygamæ. *Perianthium* 6-partitum v. 6-fidum, subæquale; limbo demum evanescente. *Stamina* 9; *antheræ* oblongæ in filamentis angustatæ, locelli quaterni, per paria unus super altero positi, antherarum trium interiorum reversi. *Staminodia* quarti ordinis v. 0, v. subulata, aut saltem minus completa. *Bacca* perianthii tubo in cupulam profundam crassamque converso truncatoque, magis v. minus inversa.—Inflorescentia *paniculata v. racemosa, plerisque densa, multis etiam brevis et thyrsoidea, axillaris v. umbellulata. Nees, Syst. Laur.* 462.

Oreodaphne *Californica;* foliis glaberrimis anguste oblongis oblongo-lanceolatisve subacutis supra reticulatim venosis subtus glaucis, pedunculo communi axillari solitario cano-pubescente, floribus umbellulatis, umbellulis involucro globoso tectis, floribus viridibus pedicellis validis basi strigosis.

Oreodaphne Californica. *Nees, l. c.* 463.

Tetranthera (?) Californica. *Hook. and Arn. Bot. Beech., p.* 159.

This fine evergreen and hardy tree is described by David Douglas as forming the greater part of the forests of California, where it marks the transition between the gloomy pine-forests of North-West America and the tropical-like verdure of California. He further states that it is a tree 30–100 feet high, with a trunk 2–17 feet in circumference, smooth bark, and spreading branches. Douglas states further, that the whole plant is so strongly aromatic, that even during violent hurricanes he has been obliged to remove from under its shade—the odour (a most powerful camphor-like smell) being so pungent as to produce violent sneezing. The hunters make a decoction of the leaves, which imparts warmth. The first discoverer of the species was the late Mr. Menzies, surgeon and naturalist to Vancouver's Expedition, from whom I received specimens collected upwards of half a century ago.

June 1st, 1862.

Oreodaphne Californica was first introduced into England by David Douglas himself, and there is an original plant still in the Royal Gardens of Kew. The plant from which our figure was made was however received from Berlin, and flowered in March of the present year. The odour of the bruised leaves is, as Douglas says, very powerful indeed.

Fig. 1. Flower. 2 and 3. Stamens. 4. Ovary :—*all magnified.*

Vincent Brooks Imp

Tab. 5321.

ECHINOSTACHYS Pineliana.

Banded Echinostachys.

Nat. Ord. Bromeliaceæ.—Hexandria Monogynia.

Gen. Char. Calyx tubo adnato, nec superius libero, lobis æqualibus, convolutis, mucronatis. *Petala* medio constricta, ungue lato superne squamulis fimbriatis aucto. *Stamina* petalis opposita; *filamento* undique adnato. *Ovarium* crassum, carnosum, ovulis 3 ex apice loculorum pendulis.—Herba *acaulis, basi surculosa, furfuraceo-canescens;* foliis *confertis, ligulatis, canaliculatis, basi dilatatis, margine aculeatis;* scapo *terminali, erecto, sesquipedali;* bracteis *lanceolatis purpureis ornato;* spica *cylindrica, densa, bractearum apicibus exsertis subulatis echinata;* floribus *flavis post anthesin nigrescentibus, amplitudine circiter* Æchmæ fulgentis. *Brongn. in Planch. Hort. Donat.* 25.

Echinostachys *Pineliana*, Brongn. l. c.

A singular and striking plant, from the vivid colour of the peduncle and bracts. According to Planchon, in his 'Hortus Donatensis,' or Catalogue of Plants cultivated in the houses of Prince A. Demidoff at San Donato, near Florence, it is a native of Rio de Janeiro. The precise habitat of our specimen has been lost, but it was sent to us from the establishments of M. Mackoy, of Liége.

Descr. Whole *plant* two to three feet high; almost stemless. *Leaves* linear, rigid, concave, spinulose-dentate along the margin, acute and pungent at the apices, uniformly covered on both surfaces with fine appressed silvery furfuraceous down, minutely striated, and very obscurely transversely fasciate with brown. Flowering *stem* a foot high, terete, erect, wholly covered with loosely-sheathing lanceolate acuminate bright-red *bracts*, three to four inches long, and membranous. *Spike* dense, cylindrical, two inches long, spinulose from the projecting spines of the bracts. *Bracts* oblong, shorter than the *calyx*, blunt, abruptly

terminated by a spine that exceeds the flower in length. *Ovary* pubescent, bluntly trigonous. *Sepals* of the same form as the *bracts*, but emarginate at the apex with a very short spine. *Petals* yellow, convoluted, with fringed incurved apices. *Stamens* six, glabrous, alternating with as many thickened hairy glands on the *perianth*. *Style* erect, with a three-lobed *stigma*.

Fig. 1. Flower and bracts. 2. The same, with the bracts removed. 3. Flower, with perianth laid open :—*all magnified*.

1.
2.
3.

Tab. 5322.

RHODODENDRON Dalhousiæ, *hybridum.*

Lady Dalhousie's Rhododendron; hybrid var.

Nat. Ord. Ericeæ.—Decandria Monogynia.

Gen. Char. (*Vide* Tab. 4336.)

Rhododendron *Dalhousiæ*; hybridum.

A fine plant of this has been presented to us by Isaac Anderson Henry, Esq., of Hay Lodge, Trinity, Edinburgh, as a hybrid, the offspring of *Rhododendron formosum* (see our Tab. 4457), fertilized by the pollen from *R. Dalhousiæ* (see our Tab. 4718). The size of the flowers is that of its noble parent *R. Dalhousiæ*, but it has derived a tinge of pink from *R. formosum*, and the ciliated calyx also resembles the latter species, while the leaves are intermediate in size, and are quite glabrous. The anthers are small and abortive.

Fig. 1. Calyx and base of the ovary :—*magnified.* 2. Stamen. 3. Pistil :—*natural size.*

July 1st, 1862.

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W Fitch, del et lith.

Vincent Brooks, Imp.

TAB. 5323.

CŒLOGYNE PARISHII.

Mr. Parish's Cœlogyne.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. *Sepala* conniventia v. patentia, libera, æqualia, petaloidea. *Petala* nunc sepalis conformia, nunc linearia. *Labellum* cucullatum, sæpius trilobum, lineis disci elevatis v. cristatis, nunc integerrimum ecristatum (in § *Paniscia*). *Columna* erecta, libera, margine alata, apice dilatata, nunc cucullata, stigmate bilabiato. *Anthera* bilocularis septo medio non partibili, infra apicem columnæ inserta. *Pollinia* 4, libera ($\frac{2}{2}$), incumbentia, nunc basi materie granulosa cohærentia.—Herbæ *supra arbores et saxa vigentes*, foliorum *basibus* in pseudobulbos *dilatatis*, rhizomate *nunc crasso squamoso, nunc obsoleto.* Folia *coriacea, sæpius venis distinctis æqualibus nunc quibusdam crassioribus costata v. plicata.* Racemi *terminales v. radicales e squamis (bracteis sterilibus) corneis erumpentes.* Flores *speciosi, sæpe odorati. Lindl.*

CŒLOGYNE *Parishii;* pseudobulbis elongatis cylindraceo-tetragonis angustis, foliis terminalibus binis ovato-oblongis acutiusculis nervosis, pedunculo terminali erecto subsexfloro, floribus 3-uncialibus erectiusculis flavo-viridibus, bracteis membranaceis circa ovarium convolutis, sepalis petalisque minoribus patentissimis lanceolatis, labello pandurato trilobato viridi maculis atropurpureis irrorato, disco lineis tribus elevatis, lobo medio subrotundo dilatato undulato-crispato obtuso bicristato.

From the collection of Messrs. Low, of the Clapton Nursery, who received it from the Rev. C. S. P. Parish, of Moulmein, where it appears epiphytal. In colour and general structure it has a close affinity with *C. pandurata*, figured at our Tab. 5084, but it is much smaller in all its parts: the *pseudobulbs* are very different in shape, and there are striking differences in the *bracts* and in the shape and surface of the *lip*.

Fig. 1. Front view of the lip. 2. Front view of the column. 3 and 4. Front and back view of the pollen-masses :—*magnified*.

JULY 1ST, 1862.

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Tab. 5324.

ISCHARUM Pyrami.

Calla-leaved Ischarum.

Nat. Ord. Aroideæ.—Monœcia Polyandria.

Gen. Char. Spatha marcescens; *tubus* ventricosus, ima basi tantum connatus; *faux* constricta; *lamina* lanceolata, recurvata. *Spadix* androgynus, liber, crassulus, spatha paulo longior, spica ab antherarum contiguarum spica parte neutra remota, *rachi* basi dilatata; *organa neutra* infra antheras tantum sparsa; *appendix* crasse subulata, erecta. *Flosculi* nudi; Masculi: *antheræ* sessiles, compressulæ, horizontaliter exsertæ; *connectivum* tenue, vix prominulum, loculi oppositi, vertice poris oblongis vel rimulis tandem confluentibus aperientes, antheram bivalvem mentientes; Fœminei: *ovarium* uniloculare; *stylus* ex ovario abrupte exsertus, subulato-cylindricus; *stigma* hemisphæricum; *placenta* in fundo ovarii, subexcentrica, obsoleta, uniovulata; *funiculus* indistinctus, vix ullus; *ovulum* (solitarium) erectum, orthotropum, lagenæforme, micropyle tholispectante; Neutri sparsi, patentis v. patentissimi, subulati, longuli v. obsoleti. Fructus?—Herbæ *humiles*. Tuber *rotundatum*. Vaginæ *plures*. Folia 4–5, lamina *elliptico- vel lanceolato-oblonga, in* petiolum *longum decurrentia*. Pedunculus *brevis*. Spatha *ante folia producta*, tubo *e terra subexserto*, lamina *sordide atropurpurea*. Spadix *erectus, livido-purpureus. Schott.*

Ischarum *Pyrami;* foliis elliptico-subobovatis sensim in petiolum longum attenuatis apice obtusis oblique nervosis, spatha e tubo ventricoso brevi lato-lanceolatis longe acuminatis demum revolutis intus atropurpureo-velutinis, spadice spatham subæquante inferne organis tecto, ovariis stylo longiusculo attenuatis, organis neutris elongatis filiformibus ovariis contiguis, antherarum spica brevi semi-pollicari, appendice fusiformi longitudine fere spathæ.

Ischarum Pyrami? *Schott, Prodr. Syst. Aroid. p.* 66.

Schott is the great authority for the genera of Aroideous plants, for no one has studied them with more care, nor figured and described them more accurately; but it must be confessed that both the species and genera seem to us to be needlessly multiplied. The genus of which Schott quotes Blume as the author, is in reality only a *section* of *Biarum* with Blume, and all the characters the latter attributes to this section are "*Orientalia* sive Ischara." Ten species are described by Schott, mostly of Syrian

origin; but the characters are so finely drawn, that I cannot say with certainty that our plant well accords with any of them.

The tubers were brought from the Lake of Tiberias, by Dr. Hooker, in 1861, and the flowers were produced in a warm greenhouse, in January, 1862, and were soon succeeded by the foliage, which has considerable resemblance to that of *Calla palustris*.

Fig. 1. Spadix:—*natural size.* 2. Anther. 3. Pistil. 4. Pistil; the ovary laid open:—*magnified.*

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Tab. 5325.

CLUSIA Brongniartiana.

Brongniart's Clusia.

Nat. Ord. Guttiferæ.—Polyandria Monogynia.

Gen. Char. Calyx 4–8-sepalus, coloratus. *Corolla* 4–8-petala. *Stamina* numerosa, raro definita. *Stylus* 0. *Stigma* radiato-peltatum. *Flores* vulgo polygami et in fœmineis ovarium nectario stamineo brevi crasso circumdatum. *Capsula* carneo-coriacea, 5–12-valvis, costis ab apice dehiscentibus. *Placentæ* 3-angulares, valvulis introflexis affixæ; anguli interni placentarum unam efficiunt centralem placentam angulosam. *Semina* teretia aut placentæ centrali aut lateralibus angulis affixa. *Cotyledones* separabiles.—Arbores *parasiticæ*, foliis *oppositis*, caulibus *sæpe tetragonis. De Cand.*

Clusia *Brongniartiana;* frutex erectus ramosus, foliis petiolatis oblongis acuminatis subacutis crassiusculis nervo medio prominente, lateralibus paucis tenuibus, cymis (fl. masc.) terminalibus 3–plurifloris, floribus magnitudine mediocri albis (exsiccatione leviter flavescentibus) pedicellatis, bracteis calycinis 6 triseriatis adpressis ovato-orbiculatis, sepalis 4 decussatis, petalis demum patentibus, receptaculo staminifero prominente quadrato, staminibus in acervum quadrilaterum congestis obscure 4–seriatis, filamentis brevibus, antheris muticis cuneato-oblongis, loculis 2 linearibus laterali-introrsis. *Planch. et Triana.*

Clusia Brongniartiana. *Planch. et Triana, Ann. des Sc. Nat., 4me ser. v.* 13, *p.* 355.

Tovomita oblongifolia. *Hort. Bot. Par.* (*Planch. et Triana.*)

The Royal Gardens of Kew are indebted for the possession of this plant to the Jardin des Plantes of Paris. It is a native of Cayenne, and is considered among the numerous species of the genus *Clusia* (62 species, as elaborated by the authors above mentioned) to be most nearly allied to *C. flava*, L., and to *C. ovigera*, Planch. et Triana. With us it flowered in the stove in January, 1862.

Descr. A *shrub*, quite woody below, but the young *branches* are very dark green, terete, very obscurely and obtusely 4-angled. *Leaves* opposite, four to six inches long, oblong, acuminate, very thick and coriaceous, veinless, on thick *petioles* an inch long.

Panicles with opposite, thick *branches*, 8–10-flowered. *Flowers* all male in our plant, an inch broad, cream-white. *Bracteas* very deciduous. *Calyx* of four, orbicular, green *sepals*. *Petals* four, obovate, concave. *Anthers* red.

Fig. 1. Section of a flower from which the petals are removed. 2. Section of a flower with the petals. 3 and 4. Stamens :—*all more or lezs magnified.*

W. Fitch ad. et lith.

Vincent Brooks Imp.

TAB. 5326.

SACCOLABIUM MINIATUM.

Orange-red Saccolabium.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. Perianthium explanatum, patens. *Sepala* petalis æqualia, lateralia sæpius majora. *Labellum* indivisum, calcaratum, basi columnæ accretum. *Columna* erecta, semiteres, rostello subulato. *Anthera* semibilocularis. *Pollinia* 2, subglobosa, *caudicula* elongata, *glandula* minuta.—Herbæ *epiphytæ, caulescentes.* Folia *disticha, coriacea, apice sæpius obliqua.* Flores *axillares, racemosi v. solitarii. Lindl.*

SACCOLABIUM *miniatum;* foliis distichis imbricatis loratis canaliculatis apice oblique truncatis, racemis brevibus cylindraceis patentibus, bracteis minimis acutis, sepalis petalisque ovatis acutis patulis, labello lineari obtuso recurvo, calcare recto pendulo tereti breviore intus edentato, polliniis albis. *Lindl.*

SACCOLABIUM miniatum. *Lindl. in Bot. Reg.* 1847, *sub t.* 26, *and Bot. Reg. v.* 33. *t.* 58.

A native of Java, whence it was introduced to our stoves by Messrs. Veitch, previous to 1847. Our plant is specifically the same as that figured by Dr. Lindley, but the flowers are larger and, with the exception of the labellum and spur, much more inclined to red than orange. The spikes of blossom appeared with us in May of 1862, and continued a long time in perfection. It requires much heat and moisture in its cultivation.

DESCR. The *stem* is short, about the thickness of the little finger; the lower portion is brown, zigzag, and clothed with the remains of old foliage, here and there sending out long solitary vermicular *fibres*, by means of which the plant is attached to the branches of trees. *Leaves* rather numerous, eight to ten inches long, loriform, coriaceous, canaliculate, bidentate at the apex, articulated below on a sheathing base. *Racemes* axillary, solitary, somewhat drooping, rather shorter than the leaves, bearing numerous richly-coloured *flowers*, each arising from a small, ovate, acuminated *bract*. *Ovary* linear, coloured. *Sepals* and *petals*

spreading horizontally, ovate, acute, uniform in size and shape, fine red. *Lip* small, linear, recurved, with two upright teeth or lobes at its base, orange as well as the club-shaped *spur*, about as long as the flower. *Column* and *anther-case* scarlet.

Fig. 1. Flower from which the sepals and petals have been removed, showing the lip, spur, and column. 2. Front view of the column and anther. 3. Pollen-masses :—*all magnified.*

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W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5327.

NOLANA (§ Sorema) lanceolata.

Lance-leaved Nolana.

Nat. Ord. Solaneæ.—Pentandria Monogynia.

Gen. Char. Calyx subcampanulatus, limbo 5-partito. *Corolla* infundibuliformis, limbo amplo campanulato plicato 5–10-lobo. *Stamina* 5, corollæ tubo inserta, inclusa vel exserta. *Ovaria* plura (3–40), disco hypogyno carnoso inserta, libera, 1–8-locularia, *loculis* uniovulatis. *Semina* in loculis solitaria, reniformia, lenticulari-compressa, basi *strophiolo* vario instructa. *Embryo* filiformis, annularis, spiralis, albumine amplo, *cotyledonibus* semiteretibus incumbentibus; *radicula* infera.—Herbæ *prostratæ vel suffrutices erecti, Americæ meridionalis*, Convolvuli *aut* Solanearum *facie;* foliis *alternis, geminis fasciculatisque integris;* pedunculis *extra-axillaribus. De Cand.*

Nolana (§ *Sorema*) *lanceolata;* herbacea prostrata incano-pubescens, caule subangulato, foliis geminis lanceolatis semi-amplexicaulibus basi oblique adnatis hinc decurrentibus, floribus in axillis solitariis speciosis cæruleis. *Miers.*

Nolana (Sorema) lanceolata. *Choisy, in De Cand. Prodr.* 13, *p.* 12.

Sorema lanceolata. *Miers, in Hook. Lond. Journ. of Bot.* (1845) *v.* 4, *p.* 493.

This very charming and as yet very little known annual promises to be a great acquisition to our parterres in summer. It is a native of Chili, and was detected at Coquimbo by Mr. Cuming, and distributed by him under the number 856. Very recently, seeds have been introduced by Messrs. Veitch and Sons, of the Exeter and Chelsea Nurseries; and the specimen from which our figure is taken was communicated to us from Exeter in June, 1862. It is a compact-growing plant, and its large brilliant blue flowers (a colour so valuable in our flower-borders), with a white eye in the centre, are numerous and striking. These flowers are very much larger and handsomer than the well-known *Nolana paradoxa* (see Bot. Mag. t. 2604), which belongs to the same group or section, viz. *Sorema*. This group was separated as a genus by Dr. Lindley, with the character, "Corolla campanulata. Ovaria 20, libera, cumulata; Drupæ 1-loculares, 1-

spermæ, basi apertæ," and adopted by Miers, but with a more extended character and with "ovaria 30–40." Our plant exhibited only five ovaria, unless indeed the glands surrounding them can be considered as abortive ovaria (see our Fig. 2).

Descr. *Plant* annual, hoary, branched from the base; *branches* eight inches to one foot long. *Leaves* geminate, two inches long, lanceolate, the outer one of the two decurrent upon the stem. *Peduncle* solitary, axillary, longer than the leaves, single-flowered. *Calyx* with the *tube* campanulate, prominently five-angled, with five erect, green, subulate segments, at length spreading. *Corolla* large, infundibuliform-campanulate, the *tube* short, yellowish-white, gradually expanding into the large, spreading, five-lobed *limb*, each *lobe* bifid. *Stamens* five, three short, two long; *filaments* inserted near the base of the hairy tube. *Anthers* broad, ovate. *Ovaries* five, surrounded by several large *glands*. *Style* pentagonal, *stigma* clavate, five-lobed.

Fig. 1. Portion of the corolla laid open, with stamens. 2. Pistil:—*magnified.*

Vincent Brooks, Day & Son Lith.

Tab. 5328.

GRAMMITIS (Selliguea) caudiformis.

Taper-pointed Grammitis.

Nat. Ord. Filices.—Cryptogamia Filices.

Gen. Char. Sori nudi, lineares, elongati, crassi, continui, nonnunquam interrupti.—§ Selliguea, *Bory*. *Venæ primariæ pinnatæ, reliquæ copiose anastomosantes; areolæ irregulares subhexagonæ, venulas simplices vel varie ramosas includentes. Sori inter venas primarias iisque paralleli.*

Grammitis (*Selliguea*) *caudiformis;* caudice elongato crasso ramoso copiose squamoso, squamis lanceato-subulatis appressis ferrugineis basi dilatatis disco affixis, stipitibus remotis plano-triquetris subspithamæis, frondibus difformibus firmis coriaceis, *sterilibus* late ovatis magis minusve acuminatis, *fertilibus* multo angustioribus sæpe caudatis, soris copiosis unciam sesquiunciam longis crassis elevatis emersis non raro varie interruptis.

α. Soris elongatis continuis (Tab. Nostr. 5328).

β. Soris interruptis polypodioideis.

Selliguea *plantaginea. Brack. Fil., U.S. Expl. Exp. p.* 58, *and in Herb. Nostr.*

Polypodium *caudiforme. Bl. Fil. Jav. p.* 146, *t.* 54, *f.* 2, *and Metten. Polyp. p.* 110 (fronde fertili angustiori caudato-acuminata, soris interruptis).

This is a very handsome and extremely interesting Fern of the Malay Archipelago and Islands, for the possession of which, the Royal Gardens are indebted to Mr. Wendland, of the Royal Hanoverian Gardens. Some may express surprise that a Fern with such very elongated linear sori as we have here represented, should be referred by Blume to the genus *Polypodium* (§ Phymatodes); but we are so fortunate as to possess specimens exhibiting all the intermediate grades between the perfect sori of *Grammitis*, § *Selliguea*, and that form of sori which would almost justify its being placed in *Polypodium*. The localities recorded in our herbarium are, *a*, Java, *Zollinger*, *De Vries*, and *Teijsmann*, *n*. 5 (our specimen partially breaking up into suborbicular sori); *n*. 1, gathered at an elevation of 10,000 feet, upon the mountains; Tahiti (intermediate between the two forms,

Brackenridge) : β, Mergui, Griffith ; Aneiteum, trees on mountains, New Hebrides (exactly according with the *P. caudiforme* of Blume) ; Fiji Islands, Seemann (*Pleuridium vulcanicum*, J. Sm., in Seemann's Cat. of Fiji Island Plants). The oldest specific name of the plant, which we have preserved, is only expressive in certain forms of it.

Descr. *Caudex* long, creeping on the surface of the ground, or more frequently on the trunks of trees. *Stipites* a span to a foot long. *Frond* 6–10 inches long, and 3–4 inches wide in the broadest part, very firm and coriaceous ; primary veins very conspicuous and very prominent beneath, the rest of the venation internal anastomosing and seen with difficulty.

Fig. 1. Portion of a sterile frond, showing the venation. 2. Portion of a fertile frond, showing venation and sorus, and a receptacle from which the sorus have been removed :—*magnified.*

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W. Fitch del. et lith

Vincent Brooks Imp.

TAB. 5329.

BOLBOPHYLLUM PAVIMENTATUM.

Clustered Bolbophyllum.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. (*Vide supra*, TAB. 5288.)

BOLBOPHYLLUM *pavimentatum ;* pseudobulbis densissimis subrotundo-oblongis compressis monophyllis, foliis oblongis planis pedicellatis, scapo foliis longiore filiformi erecto arcte 4-vaginato, spica densa, floribus carnosis glabris bracteis obtusis longioribus, sepalis ovatis acuminatis obtusis, petalis ovatis retusis, labello brevi carnoso tomentoso obtuse acuminate revoluto, columna biseta. *Lindl.*

BOLBOPHYLLUM pavimentatum. *Lindl. on W. Afr. Trop. Orchids, in Journ. of Proceed. of Linn. Soc. v.* 6. *p.* 128.

Of the genus *Bolbophyllum* alone, Tropical Western Africa has furnished Dr. Lindley with no less than fourteen species, all of which, with the exception of one, are entirely new species, and these are all from the collections of the indefatigable Gustav Mann. The species now before us was discovered on the banks of the Nun, in September, 1860, and it flowered with us in February, 1862. The specific name is given from the soil on which the plants grew, being as it were, paved with the densely compacted pseudobulbs, a resemblance the more striking in the dried and compressed specimens, where these pseudobulbs would be reduced to a nearly uniform level. The species is compared by Dr. Lindley to the *B. cupreum* and *B. recurvum*.

DESCR. *Pseudobulbs* subrotund or oval, subcompressed, densely clustered, scarcely exceeding an inch in length, terminated by a solitary, oblong, coriaceous, rather acute *leaf*, contracted and conduplicate at the base, so as to be subpetiolate, three to four inches long. *Scapes* slender, about as long as the leaf with four to six sheathing *bracts*, bearing a drooping *spike*, two inches long, of rather densely imbricated, deep-purple *flowers*, each subtended by a short green, ovate, concave *bract*. *Ovary* sessile,

obconical, short, ribbed. *Calyx* of three spreading, oval-oblong, obtuse, fleshy *sepals*. *Petals* scarcely half the length of the sepals, linear-oblong. *Lip* thick, fleshy, oblong-ovate, obtuse, very obscurely three-lobed, recurved or almost revolute, fringed all round with fleshy hairs, and having two lines of the same hairs on the disk. *Column* very short, but the margin is extended into a subulate spine on each side as long as the column, and bearing a small tooth at its base.

Fig. 1. Side view of a flower. 2. Front view of flower. 3. Side view of the column and lip, the sepals and petals being removed. 4. View of the upper side of the lip. 5. Pollen-masses :—*all more or less magnified.*

Tab. 5330.

IPOMÆA ALATIPES.

Wing-footed Ipomæa.

Nat. Ord. Convolvulaceæ.—Pentandria Monogynia.

Gen. Char. Calyx 5-sepalus. *Corolla* campanulata. *Stamina* inclusa. *Stylus* 1. *Stigma* capitatum, sæpius bilobum. *Ovarium* biloculare, *loculis* dispermis. *Capsula* bilocularis.—Herbæ suffrutices aut etiam arbores, *ex omnibus, speciatim e calidioribus, regionibus. Chois.*

Ipomæa *alatipes;* caule glabro volubili, foliis profunde acuminatis sinu et auriculis obtusissimis glabris 2–3-pollices longis longiuscule petiolatis, pedunculis 1–4-floris foliis longioribus utrinque ala lata membranacea, pedicellis exalatis glanduligeris sæpe tortuosis apice dilatatis, calyce magno clavato, sepalis ovalibus imbricatis, corollæ lateritiæ tubo elongato limbo amplo patentissimo, lobis brevissimis emarginatis.

Ipomæa pterodes. *Seem. Bot. of the Herald, p.* 171 (*non Chois. in De Cand.*).

Seeds of this handsome species, accompanied by dried specimens, were sent to us by Sutton Hayes, Esq., under the native name of "*Michoican,*" as a plant cultivated in gardens on account of its beauty. Dr. Seemann also found it at Veraguas, but mistook it for the *Ipomæa pterodes* of Choisy, from which, however, it is readily distinguished by the colour of its corolla, and by its singularly-winged peduncle bearing from two to four flowers. The same species has been detected in Venezuela by Fendler (n. 2084), but I do not find it anywhere described. It has flowered in the stove of the Royal Gardens, in June, 1862.

Descr. A strong-growing, rampant *climber*, with glabrous *stems*, and *branches*, and *foliage*. *Leaves* two to three inches long, cordate, acuminate, with a deep obtuse sinus at the base, and very obtuse, rounded lobes. *Peduncles* axillary, furnished with a singularly-broad membranaceous wing on each side, two- to four-flowered; the *pedicels* wingless, but very tortuose, as if they might act as tendrils in supporting the long, climbing stem, and frequently furnished with glands, possibly abortive branches

of the pedicels, dilated just below the large, ovate *calyx*, an inch and often more long. *Corolla* salmon-coloured, three inches in diameter.

Fig. 1. Pistil, arising from a glandular disk,—*magnified*.

W. Fitch, del. et lith.
Vincent Brooks, Imp

Tab. 5331.

ANOMOCHLOA MARANTOIDEA.

Maranta-like Anomochloa.

Nat. Ord. Gramineæ.—Tetrandria Monogynia.

Gen. Char. Flores hermaphroditi. *Spiculæ* unifloræ, in axillis bractearum spicæ compositæ ternatim fasciculatæ (cymis scorpioideis abbreviatæ). *Glumæ* nullæ. *Paleæ* duæ, carinatæ, imparinerviæ, alternæ, florem terminalem involventes; *inferior* membranacea, nervosa; *superior* crassior, subcrustacea, marginibus ante adpressis, in appendice lineari canaliculato obtuso desinente. *Squamulæ* nullæ; *discus* aut *annulus* piloso-fimbriatus staminum basi cingens. *Stamina* 4, æqualia et æque distantia. *Ovarium* oblongum, obliquum; *stylus* gracilis; *stigma* indivisum, filiforme, exsertum, breve, papillosum. *Caryopsis* oblonga, palea superiori indurata, inclusa; *perispermo* farinoso; *embryone* parvo, basilari oblique scutelliformi.—Gramen (*Brasiliense*) *humile*, foliis *petiolatis*, vagina *laxa truncata*, limbo *distincto lato*, nervis *parallelis*. *Brongn.*

Anomochloa *marantoidea.*

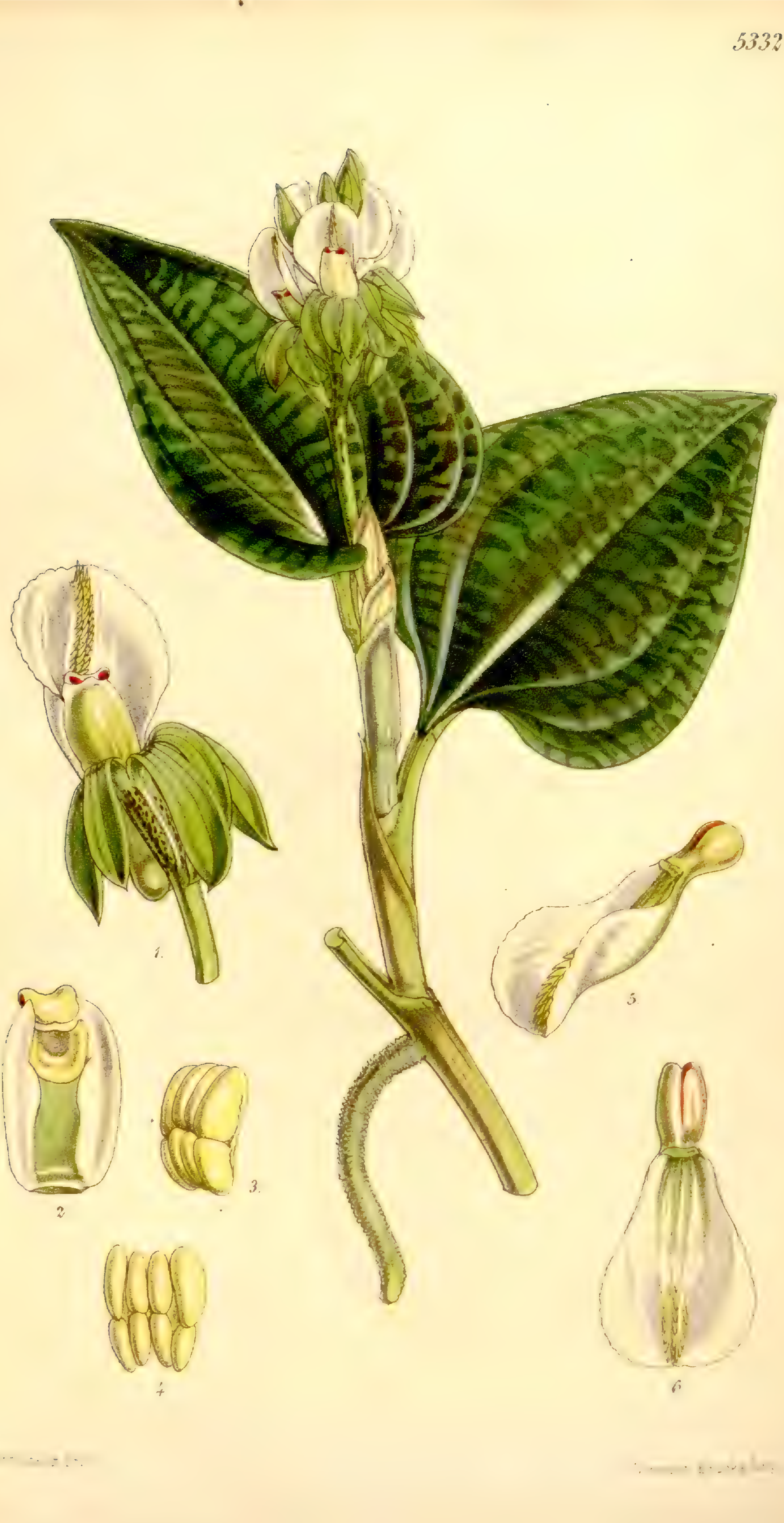
Anomochloa marantoidea. *Brongn. in Ann. Sc. Nat. Ser.* 3. *v.* 16. *p.* 368. *tab.* 23.

In the 5331 figures of plants given in this Magazine, it must be confessed the Grasses are not fairly represented. They are too uniform in aspect to be generally favourites with cultivators in ornamental gardens. *Briza maxima*, however, is an exception, and it finds a place at our Tab. 337; and *Coix Lachryma*, or "Job's Tears," Tab. 479, on account of the curious structure of its flowers. The Grass we now figure may surely come under the latter category. In its habit it resembles some Marantaceous plant rather than a Grass, and in the number of its stamens (four) it departs from the ternary arrangement so prevalent among Grasses, and these *four* are so regularly arranged as to indicate no abortive reduction, as in the well-known instance of our Sweet-scented Vernal Grass (*Anthoxanthum odoratum*), where the number is reduced to two, as is evident by the vacant space where the third should be. M. Brongniart has given a full and admirable description of this plant in the 'Annales,'

above quoted, to which we must refer our readers. The plant is a native of Bahia, in Brazil, and has been introduced to the Jardin des Plantes at Paris, whence our living plants have been received through the kindness of Professor Decaisne.

Descr. Apparently perennial. *Culms* short, erect, leafy, chiefly towards the base, with four to six broad leaves, which are four to five inches long, one to two inches broad, cordato-lanceolate, striated, petiolate; *petiole* one to two inches long, slender, grooved in front, terminating a long, lax, truncated *sheath*, three to four inches long; *ligule* short, obtuse, ciliated. *Spikes* racemose, one or two, terminal on the culm, at first, according to Brongniart, scorpioid, then erect. *Flowers* subtended by long, almost leafy, conduplicate, lanceolate *bracts*, the outermost one terminating in a leaf. *Spikelets*, two to three in each bract, with a few *bracteoles* at their base. *Corolla* of two valves (*paleæ*): the *inferior* larger, green; *superior* one nearly white, firm, and crustaceous, terminated by a long, linear, grooved *appendage*. *Squamulæ* none; but there is a ciliated *ring* or *disk*, within which are the stamens and pistil. *Stamens* four, uniformly disposed. *Filaments* very much extended, slender. *Anthers* linear, drooping, yellow, oblong-sagittate. *Style* very long, slender, longer than the valves of the corolla, gradually passing into the subulate papillose *stigma*.

Fig. 1. Two spikelets, removed from the large outer bract. 2. Inner crustaceous valve of the corolla, enclosing the stamens and pistil. 3. Pistil:—*more or less magnified.*



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TAB. 5332.

NEPHALAPHYLLUM PULCHRUM.

Beautiful Cloudy-leaf.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. Sepala et *petala* linearia, patentissima v. reflexa. *Labellum* calcaratum, integerrimum, liberum, linea media elevata; *limbo* petaloideo cum columna parallelo. *Columna* semiteres. *Anthera* carnosa, triangularis, bilocularis. *Pollinia* 8, subquadrata.—Herbæ *terrestres, subcaulescentes, glabræ;* foliis *ovatis petiolatis plicatis, supra nebulosis subtus purpurascentibus;* pedunculo *terminali multifloro;* floribus *pedicellatis. Blume.*

NEPHALAPHYLLUM *pulchrum;* floribus dense spicatis, labelli limbo obovato retuso lineis tribus elevatis versus apicem subulato-papillosis.

NEPHALAPHYLLUM pulchrum. *Bl. Bijdrag. p.* 372; *Tabellen,* 32. *Lindl. Gen. et Sp. Orchid. p.* 24. *Reichenb. Xenia Orchid. v.* 1. *p.* 216. *t.* 88. *f.* 1.

A rare and very little known Orchideous plant, first detected by Blume in Java (on Mount Salak), and since by Zollinger. It has now been introduced to our gardens by Messrs. Low, of Clapton, by whom we were favoured with the flowering specimen here represented in May, 1862. A second species, described by Blume, is *N. tenuiflorum;* and Reichenbach is disposed to consider *Cytheris cordifolia,* Lindl., from Sylhet (Wallich), as a third species. The habit of the genus and the marking of the foliage remind one strongly of the now well-known genus *Anœctochilus,* and both the genera are terrestrial.

DESCR. *Stem* ascending, branched, about a span high, with a few stout vermicular *roots,* partially clothed with membranous, sheathing *scales. Leaves* two in our plant, petiolate, submembranaceous, cordato-ovate, acute, five- to seven-nerved, reticulated with veins, yellowish-green, slightly tinged with purple (more so beneath), and clouded with irregular spots of darker green. *Peduncle* terminal, sheathed with *bracts* at the base, erect, short, few- (four to six-) flowered. *Flowers* in a lax short *spike. Sepals*

and *petals* pale-green, with three lines on striæ, uniform, linear, patent, soon quite reflexed. *Lip* large, obovate, retuse, white, with three elevated lamellæ or ridges, green at the base, but towards the apex muricated as it were with soft yellow papillæ: the base of the lip is extended into a short didymous *spur*. *Column* large in proportion to the size of the flower, semiterete, yellowish white, the margin expanded into a wing. *Anther-case* subtriquetrous (or rather saddle-shaped). *Pollen-masses* eight, occupying the two cells of the anther-case.

Fig. 1. Flower. 2. Column and anther, front view. 3. Side view of the pollen-masses. 4. Front view of ditto. 5. Side view of labellum and apex. 6. Front view of ditto:—*all more or less magnified.*

W. Fitch, del et lith.

Vincent Brooks, Imp

Tab. 5333.

AGAVE GLAUCESCENS.

Glaucescent Agave.

Nat. Ord. Amaryllideæ.—Hexandria Monogynia.

Gen. Char. Perigonium corollinum, superum, infundibuliforme, persistens, limbi sexpartiti laciniis subæqualibus. *Stamina* 6, tubo perigonii inserta; *filamenta* filiformia, æstivatione inflexa, sub anthesi exserta; *antheræ* lineares, versatiles. *Ovarium* inferium, triloculare. *Ovula* plurima, in loculorum angulo centrali biseriata, horizontalia, anatropa. *Stylus* filiformis, exsertus, cavus, apice pervius; *stigma* capitato-trigonum. *Capsula* coriacea, trigono-triquetra, trilocularis, loculicide trivalvis. *Semina* plurima, plano-compressa; *testa* chartacea, marginata; *raphe* lateral, umbilicum prope basin lateralem chalazæ subapicali jungente. *Embryo* cylindricus, axilis, albuminis carnosi longitudine, extremitate radiculari umbilicum spectante.—Herbæ *acaules v. caulescentes, interdum giganteæ, longævæ, vel semel florentis, in America tropica et subtropica cis æquatorem indigenæ, quædam nunc a mortalibus late diffusæ;* foliis *radicalibus carnosis, interdum maximis, marginibus spinosis;* floribus *in scapo radicali bracteato paniculatis numerosissimis. Endl.*

Agave *glaucescens;* caule elongato crasso, foliis crassissimis 2–3-pedalibus glaucis spathulato-lanceolatis marginatis integerrimis apice longe spinescentibus supra concaviusculis subtus valde convexis, scapo bipedali copiose subulato-bracteato, spica caudiformi crasso densifloro cernuo scapo quadruplo longiore demum copiose viviparo, floribus in bracteis subulatis aggregatis pedicellatis, pedicellis brevibus basi bracteolatis, ovario cylindraceo, tubo brevi contracto, limbi laciniis linearibus, staminum filamentis longitudine perianthii, stylo longiore.

Agave glaucescens. *Hort. Kew.*

Of the fine and in many species stately genus *Agave*, no less than sixty-four species are enumerated and attempted to be characterized in Professor Koch's 'Wochenschrift des Vereines zur Beforderung des Gartenbaues in den königlich Preussischen Staaten,' etc., for 1860, chiefly from garden plants, and too often plants whose flowers are unknown. We do not find among them one which accords with our present individual, which has been cultivated in the Succulent House at Kew, where it was

received from Galeotti many years ago as a native of Mexico, under the name we have here adopted. It flowered in the autumn of 1861 for the first time, and was a very attractive object during the whole winter, for the expansion of the innumerable flowers on the long and singularly decurved spike was very gradual, and now that we are describing it (August, 1862) the spike still remains with a few imperfect capsules, and an immense quantity of young plants germinating on the rachis. The leaves are withering, and the foliage and most of the stem will probably die; but suckers are produced from the base of the stem, and there is altogether a most abundant crop of young plants.

Descr. *Stem* three to four feet high, and twelve inches in circumference, cicatrized with the transverse scars arising from the fallen leaves. *Leaves* two to three feet long, forming a noble crown to the stem, very thick and fleshy, and singularly glaucous, spathulato-lanceolate, quite entire, and with a narrow cartilaginous margin, terminated by a long and very pungent and subulate *spine*. *Scape* eight feet long, cylindrical, erect or nearly so, beset with large subulate *bracts*, and terminating in a dense, caudate, remarkably deflexed *spike*, nearly as thick as one's arm, of really innumerable, most firmly compacted, and imbricated flower-buds. The lowest buds are the first to diverge from the rachis, and to expand; and then the spike becomes *hérissé* with the multitude of stamens and styles, and eventually with a large crop of young plants, for it is abundantly proliferous, especially towards the apex. *Bracteoles* about three inches long, subulate, including two to four shortly pedicelled, green flowers, each about an inch and a half long. *Ovary* inferior, oblong, broader than the short free portion of the cylindrical *tube*; *limb* of six rather long, linear, obtuse, channelled, spreading *segments*. *Stamens* as long as the flowers, or even longer. *Anthers* long, linear. *Style* often as long as the filaments of the stamens.

Fig. 1. Very reduced flowering plant. 2. Portion of the rachis of the spike, with flowers:—*natural size*. 3. Bract, bracteoles, and flowers:—*slightly magnified*. 4. Apex of a leaf:—*natural size*.

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W. Fitch, del. et lith.

Vincent Brooks Imp.

TAB. 5334.

PHILADELPHUS HIRSUTUS.

Hairy Philadelphus, or Mock Orange.

Nat. Ord. PHILADELPHEÆ.—ICOSANDRIA MONOGYNIA.

Gen. Char. *Calyx* tubo obovato, turbinato, cum ovario connato; *limbi* superi quadri-quinquepartiti laciniis æstivatione valvatis. *Corollæ petala* 4–5, sub annulo epigyno inserta, calycis laciniis alterna, obovata, æstivatione convolutiva. *Stamina* plurima, cum petalis inserta; *filamenta* compresso-plana, subulata; *antheræ* introrsæ, biloculares, ovato- v. subgloboso-didymæ, longitudinaliter dehiscentes. *Ovarium* inferum, quadri–quinque- rarius octo–decemloculare. *Ovula* in placentis loculorum angulo centrali adnatis plurima, pluriseriatim imbricata, pendula. *Styli* 4–5, filiformes, basi coaliti, superne plus minus distincti; *stigmata* oblonga v. linearia, discreta v. coalita. *Capsula* coriacea, calyce corticata, quadri-decemlocularis, apice breviter exserto loculicide quadri–decemvalvis, valvis medio septiferis, indivisis v. tandem septicide bifidis. *Semina* plurima, pendula, pluriseriatim imbricata, oblonga; *testa* membranacea, utrinque relaxata, reticulata, ad umbilicum fimbriata, nucleum multo minorem includens. *Embryo* in axi albuminis carnosi orthotropus; *cotyledonibus* ovatis, plano-convexis; *radicula* longa, cylindrica, supera.—Frutices *in Europa australi vel in America boreali temperata indigeni;* foliis *oppositis, epunctatis, petiolatis, simplicibus, dentatis vel subintegerrimis;* floribus *corymboso-cymosis subpaniculatis, v. rarius axillaribus, bracteatis,* ***albis, sæpe suaveolentibus. Endl.***

PHILADELPHUS *hirsutus;* foliis petiolatis ovatis acuminatis grosse dentatis 3-nerviis supra pubescenti-scabris subtus calycibus pedicellisque canescenti-hirsutis, floribus aggregatis, pedicellis brevibus, calycis segmentis ovato-triangularibus, stylo brevi stigmatibus connatis.

PHILADELPHUS hirsutus. *Nutt. Gen. v.* 1. *p.* 301. *De Cand. Prodr. v.* 3. *p.* 206. *Lindl. Bot. Reg. v.* 24. *t.* 14. *Torrey et Gray, Fl. N. Am. v.* 2. *p.* 595.

PHILADELPHUS trinervius. *Schrad. in Linnæa, v.* 12. *p.* 47.

The American species of *Philadelphus* are not very readily distinguished from each other; and if we are correct, as we believe, in naming this *P. hirsutus*, it is a native of Oregon country, North-west America, whence it was imported recently by the Messrs. Veitch. It does not in any way differ from the original authentic specimens in our herbarium of *P. hirsutus*,

gathered in Tennessee, of the United States, the only other locality recorded for it.

The common *Philadelphus*, or *Mock Orange* of the gardens, has long been known by the name of "Syringa;" and it is the "*Syringa* alba, seu Philadelphus Athenæi" of Bauhin and other old classical botanical writers. *Syringa vulgaris* is the botanical name, as is well known, of the common *Lilac*, and this circumstance led Mr. Curtis, Bot. Mag. t. 183, to quote under the common Lilac a passage from old Gerard relating to the peculiar odour of the flowers of the *Philadelphus coronarius* (see our Tab. 391):—"They have a pleasant sweete smell, but in my judgement they are too sweete, troubling and molesting the head in a very strange manner. I once gathered the flowers, and laid them in my chamber window, which smelled more strongly after they had lien together a few howers, with such a poutiche and unacquainted savor, that they awakened me from sleepe, so that I could not take any rest until I had cast them out of my chamber." Curtis afterwards corrected this error, but suggested, to prevent similar mistakes in future, to cease applying the term *Syringa* to the *Philadelphus* altogether; but this is more easily said than done. It is supposed that in both cases the name was derived from *συριγξ*, *a pipe*, from the use made of the long straight stems for pipe-tubes. The odour of the common Mock Orange is indeed very powerful, by some compared to fresh Cucumber, by others to that of smelts. Of our *P. hirsutus*, the smell of the plant, especially in the dried state, is that of Melilot.

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W.Fitch, del. et lith

Vincent Brooks, Imp

OURISIA COCCINEA.

Scarlet-flowered Ourisia.

Nat. Ord. Scrophularieæ.—Didynamia Gymnospermia.

Gen. Char. Calyx 5-lobus vel 5-partitus. *Corolla* infundibuliformis, incurva v. obliqua; *limbi* 5-fidi laciniis obtusis planis. *Stamina* 4, didynama, inclusa; *antheræ* subreniformes, *loculis* divaricatis confluentibus. *Stylus* apice capitato-stigmatosus. *Capsula* loculicide bivalvis, *valvulis* medio septiferis *placentis* auferentibus. *Semina* plurima, *testa* laxa reticulata.—Herbæ *basi rarius lignescentes*, Austro-Americanæ *vel* Australasicæ. Folia *opposita*, *nunc omnia conformia*, *nunc radicalia petiolata*, caulina *subnulla*, floralia *bracteæformia opposita vel verticillata*. Flores *aut axillares solitarii, aut ad apicem pedunculi v. capiformes racemosi vel subumbellati. Benth. in De Cand.*

Ourisia (§ Dichroma) *coccinea;* caule brevissimo repente, foliis subradicalibus longe petiolatis cordato-ovatis crenatis, floralibus oppositis cuneatis inciso-dentatis, racemo elongato, floribus dissitis, corollæ tubo calyce plus triplo longiore. *Benth.*

Ourisia coccinea. *Pers. Syn. Pl. v.* 2. *p.* 169. *Benth. in De Cand. Prodr. v.* 10. *p.* 192. *Gay, Fl. Chil. v.* 5. *p.* 132.

Dichroma coccinea. *Cav. Ic. v.* 6. *p.* 59. *t.* 582.

This truly lovely plant, never yet known in cultivation, and of which no coloured figure has anywhere appeared, was recently imported from the Andes of Chili by those enterprising and eminent nurserymen, Messrs. Veitch and Son (a firm, we believe, of three generations of the family), of Exeter, and King's Road, Chelsea. All the species of the genus are beautiful, and they number thirteen, inhabitants of the southern hemisphere, and chiefly the extratropical regions on the high Andes of South America, coming down to the coast in the Straits of Magellan. Two species, *O. chamædrifolia* and *muscosa*, are found in the Andes of Peru and Ecuador (Jameson): one is a native of New Zealand, and one of Tasmania. There can be little doubt of *O. coccinea* proving a hardy plant in our gardens, as far as climate is concerned; but it is best cultivated in a cold frame,

like alpine plants in general. In the spring of this year we witnessed its beautiful appearance thus treated in Messrs. Veitch's Nursery, Exeter.

Descr. Herbaceous, slightly pilose on the scape, veins of the foliage, etc. *Leaves* mostly radical, long-petiolate, cordate, with a deep sinus, obtuse, unequally lobed, and crenate all round the margin, rather strongly veined, pale-coloured beneath. *Scape* a foot and more long, erect, terete, bearing one or two petiolated leaves at the base. *Flowers* in opposite pairs, racemose, each subdented by a somewhat palmate or digitated, erect, herbaceous *bract*. *Pedicels* single-flowered, an inch and a half long, tinged with red, erect. *Flower* drooping. *Calyx* green, tinged with purple, of five, spreading, deep, lanceolate lobes. *Corolla* as long as the pedicels, bright scarlet; *tube* long, dilated, upwards; *limb* two-lipped, five-lobed, each lobe obtuse and bifid, scarcely patent. *Stamens* included; *filaments* inserted above the middle of the tube. *Ovary* ovate. *Style* filiform, as long as the corolla.

Fig. 1. Corolla, laid open. 2. Pistil:—*magnified.*

W.Fitch,del.et lith.

Tab. 5336.

EPIDENDRUM PRISMATOCARPUM.

Prism-fruited Epidendrum.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala patentia, subæqualia, lateralibus basi haud productis. *Petala* nunc conformia et æqualia, nunc diversissima. *Labellum* unguiculatum, cum columna parallelum et omnino v. parte connatum : limbo integro v. diviso, basi sæpius callo duplici, costa v. tuberculo nunc interjectis instructo ; nunc verisimiliter in calcar productum, pedicello immersum ideoque columnæ caniculum formans. *Columella* elongata : *clinandrio* marginato sæpe fimbriato, semiteres ecornis, basi sæpius caniculata. *Pollinia* 4, coriacea, æqualia, compressa ; *caudiculis* totidem replicatis ; *glandula* libera nulla. *Anthera* carnosa, 2–4-locularis.—Herbæ *epiphytæ* Americæ calidioris, *nunc terrestres.* Caulis *nunc pseudobulbosus nunc elongatus, foliosus.* Folia *carnosa rarissime venis elevatis striata.* Flores *solitarii, spicati, racemosi, corymbosi, vel paniculati, terminales vel laterales, sæpius siccati coriacei,* raphibus *farcti. Lindl.*

Epidendrum *prismatocarpum ;* pedunculo elongato multifloro, ovario abbreviato triptero, sepalis petalisque ligulato-lanceolatis acutis, labello unguiculato cordato acuminato utrinque obtuse auriculato, crista bicruri linea interjecta lanceolata, clinandrii appendice quadrata tridentata. *Lindl.*

Epidendrum prismatocarpum. *H. G. Reichenbach, in Bot. Zeit.* 1852. *p.* 729. *Lindl. Fol. Orchid. Epidendr. p.* 9. *n.* 23.

Epidendrum Uro-Skinneri. *Hortulan.*

This peculiar-looking species of *Epidendrum* we have received in July, 1862, from the stove of Mr. Low, of the Clapton Nursery, and also from Mr. Tucker, gardener to George Reed, Esq., Burnham, Somerset. It appears to have been cultivated in some gardens under the name of *E. Uro-Skinneri,* but Dr. Lindley refers us to the Bot. Zeit. for 1852, where it was published from dried specimens under the name of *E. prismatocarpum*, so named on account of the three sharp angles or wings of the ovary. It is an inhabitant of Chiriqui, Veragua, Central America, and is one of the many interesting discoveries of the botanical

traveller Warszewicz. Reichenbach says, "flowers small, lip brown, dotted;" but such is not the case in the living plant.

Descr. *Pseudobulb* ovate, tapering upwards into a kind of neck, green, obscurely furrowed, crowned with three ligulate scarcely coriaceous, flaccid *leaves*, almost a foot long, and an inch and a half broad. *Scape* from the centre of these leaves terete, erect. *Raceme* almost a foot long, many-flowered. *Bracts* minute. *Pedicels* scarcely an inch long, terminated by a turbinate, triquetrous *ovary*. *Sepals* and *petals* uniform, spreading, an inch and more long, oblong-lanceolate, shortly acuminate, pale-yellow, with many dark-purple blotches, variable in size, fewer on the sepals than on the petals, or sometimes none. *Lip* the same length as the petals, unguiculate, white, greenish at the base: two lateral lobes short and rounded, very obtuse, middle lobe trowel-shaped, very acuminate, the upper side with a large purple-lilac blotch, varying in intensity: the disk of the lip has an elevated ridge, with a longitudinal cleft in the lower half. *Column* semiterete, terminated by three fimbriated lobes, with a brown blotch at the base.

Fig. 1. Column and lip, seen from above. 2. Front view of the column. 3 and 4. Pollen-masses:—*magnified.*

W Fitch del et lith

Vincent Brooks Imp

DIMORPHOTHECA Barberiæ.

Mrs. Barber's Dimorphotheca.

Nat. Ord. Compositæ.—Syngenesia Polygamia Necessaria.

Gen. Char. (*Vide supra*, Tab. 5252.)

Dimorphotheca *Barberiæ ;* herbacea, tenuiter glanduloso-puberula, foliis oblongo-lanceolatis basi longe attenuatis acutis distanter calloso-denticulatis integerrimisve, ramis apice aphyllis monocephalis, involucri squamis acuminatissimis margine scariosis, floribus disci (omnibus sterilibus) dimorphis, exteriorum lobis patulis apice barbatis, interiorum lobis conniventibus inflato-cucullatis triangularibus glabris, achæniis radii lævibus. *Harv.*

Dimorphotheca Barberiæ. *Harv. MSS. in Herb. T. C. D.*

A native of Kreilis' Country, Caffraria, where it was discovered by Henry Bowker, Esq. It is described by Mrs. F. W. Barber, to whom we are indebted for seeds and dried specimens, as "a lovely plant," conspicuous for its brilliant purple flowers. Unlike most of the species of *Dimorphotheca*, the ray-flowers are much more deeply coloured on the upper or inner surface than on the outer. The disk-flowers are remarkable for having corollas of two forms. Raised at Kew, where it flowered in June, 1862.

Descr. *Stems* herbaceous, slightly lignescent at base, purple erect or ascending, subsimple, laxly leafy. *Leaves* broadly lanceolate or oblong-lanceolate, four or five inches long, from half to three-quarters of an inch wide, the lower ones tapering greatly at base into a petiole, the upper sessile, all remotely denticulate or quite entire. The stems, foliage, peduncles and calyx are minutely puberulous, with spreading gland-tipped hairs. *Flowers* on terminal, naked peduncles, two and a half inches across. *Ray*-florets brilliant purple above, pale mauve beneath. *Disk*-florets all deep purple ; the corollas of the outer ones with five, spreading, externally bearded lobes ; those of the inner florets with

connivent, glabrous, puffy-concave or caplike lobes, flattened on the summit and three-cornered.—*W. H. H.*

Fig. 1. Floret of the ray. 2. Section of the same, showing the deeply forked style. 3. Outer floret of the disk, with its bearded corolla. 4. Style from the same. 5. Inner floret of the disk, with its connivent and inflated corolla. 6. The same, cut open, showing the anthers. 7. One of the inflated or hooded lobes. 8. Style from the same floret:—*magnified.*

W.Fitch, del et lith.

Vincent Brooks, Imp

TAB. 5338.

LILIUM AURATUM.

Golden-striped Lily.

Nat. Ord. LILIACEÆ.—HEXANDRIA MONOGYNIA.

Gen. Char. Calyx 6-sepalus, corollaceus, regularis, deciduus; *sepala* distincta, sæpe basi angustato-unguiculata, inferne campanulato- rarius infundibulari-conniventia, superne patentia vel revoluta, intus supra basin sulco nectarifluo exarata; sulco nudo vel fimbriato-ciliato. *Præfloratio* alternativa. *Stamina* 6, imæ basi sepalorum inserta. *Filamenta* filiformia, apice subulata. *Antheræ* lineares, emarginatæ vel obtusæ, basi bilobæ, antice supra basin affixæ, utroque margine secundum longitudinem dehiscentes, apertæ, curvatæ, incumbentes. *Ovarium* liberum, prismatico-trigonum (hexaquetrum in *Martagone*), sex-sulcatum, triloculare; *ovula* in loculis crebra, biserialia horizontalia, anatropa. *Stylus* terminalis, cylindricus rectus vel subcurvatus, deciduus. *Stigma* toroso-incrassatum, trigonum, apice trilobum. *Capsula* subcoriacea, oblonga vel obovata, hexagona, apice obtusa et vertice depressa, basi brevissime attenuato-substipitata, trilocularis, superne loculicido-trivalvis; *valvæ* medio septiferæ filo suturis interjecto fibrillisque subalternis pectinato-ramoso connexæ; *columella* centralis nulla. *Semina* in loculis crebra, biserialia, horizontalia, oblique obovata, late alato-marginata, fusca vel lutescentia; *hilum* parvum; *testa* membranacea, ope membranæ internæ tenuissimæ *albumini* cartilagineo-carnoso arcte adnata, margine ubique membranaceo-dilatata; *raphe* obsoleta, filiformis, ad latus rectius, e vertice per marginem descendens. *Embryo* rectus vel lævissime sigmoideus, albumine magis minusve brevior; *radicula* hilo proxima.—Herbæ *bulbosæ*, bulbo *squamoso, sæpe per rhizoma infra productum repente.* Caulis *simplex, erectus, foliatus, apice uni-multiflorus;* floribus *pedunculatis, umbellatis corymbosis vel racemosis, magnis, speciosis, erectis vel nutantibus.* Folia *sparsa vel verticillata, plerumque angusta. Kunth.*

LILIUM *auratum;* caule gracili (unifloro?), foliis anguste lanceolatis basi acutis, flore subdeclinato maximo crateriformi candido odoratissimo, sepalis petalisque multo latioribus lanceolatis acuminatis apice recurvis basi intus villosis superficie spinulosa et guttulata, filamentis basi leviter monadelphis. *Lindl.*

LILIUM auratum. *Lindl. in Gard. Chron. July* 12, 1848, *p.* 644 *b.*

It may be presumed that this Lily has been one of the most attractive, if not the most attractive, object of the present floral season (1862); it was recently imported from Japan by Messrs. Veitch and Sons, of Exeter and Chelsea, through Mr. T. J. G. Veitch, who makes the following mention of its locality:—"It is

found growing wild on hillsides in the midland provinces of Japan (no particular island stated); the flowering season, July and August, during which months it may be commonly seen in situations exposed to the sun. There is no doubt that it will prove perfectly hardy in this country."

Being myself absent when the specimens were sent to be figured, I had no opportunity of making notes from the recent plant; and gladly transcribe Dr. Lindley's observations, as I have above given his specific character:—

"If ever a flower merited the name of glorious, it is this, which stands far above all other Lilies, whether we regard its size, its sweetness, or its exquisite arrangement of colour. Imagine, upon the end of a purple stem no thicker than a ramrod, and not above two feet high, a saucer-shaped flower at least ten inches in diameter, composed of six spreading, somewhat crisp parts, rolled back at their points, and having an ivory-white skin thinly strewn with purple points or studs, and oval or roundish, prominent, purple stains. To this add in the middle of each of the six parts a broad stripe of light satiny yellow, losing itself gradually in the ivory skin. Place the flower in a situation where side-light is cut off, and no direct light can reach it except from above, when the stripes acquire the appearance of gentle streamlets of Australian gold, and the reader who has not seen it may form some feeble notion of what it is. Fortunately ten thousand eyes beheld it at South Kensington on the 2nd instant (July), and they can fill up the details of the picture. From this delicious flower there arises the perfume of orange blossoms sufficient to fill a large room, but so delicate as to respect the weakest nerves. It is botanically allied to *Lilium lancifolium* on the one hand, and to the orange-red *L. Thunbergianum* on the other, but it is wholly different from either."—*Lindl. in Gard. Chron. l. c.*

In a subsequent number of the 'Gardeners' Chronicle,' it is stated that Mr. Standish had some two-flowered plants coming on, supposed to be the same species; and Mr. Fortune remarks that he has usually seen this plant four feet high in Japan, and often with three or five of these large flowers on the same stem, and he adds, "I rather suspect it is the great-grandmother of *L. speciosum*." If by this expression is meant a hybrid offspring of that species, he is probably correct, for the purple spots and papillæ show an evident affinity with that.

The 'Gardeners' Monthly Advertiser,' published at Philadelphia, announces in its August number that the Lily had been received in Massachusetts by Mr. Parkman, of Jamaica Place, the preceding year, from Japan, and produced its gorgeous blossoms, equal in size with those that have appeared in England.

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Tab. 5339.

ACANTHONEMA STRIGOSUM.

Strigose Acanthonema.

Nat. Ord. Cyrtandraceæ.—Didynamia Angiospermia.

Gen. Char. Acanthonema, *Hook.*—*Calyx* profunde 5-partitus, æqualis, lobis lineari-oblongis erecto-patentibus. *Corolla* calyce 4-plo longior, infundibuliformis, tubo sursum curvato subventricoso, limbo patente æquali 5-lobo, lobis rotundatis. *Stamina* omnino inclusa, 4 fertilia, didynamia, quinto abortivo ad squamam subulatam redacto; *fertilium filamenta* medio incrassata, 2 superiora breviora, inferiora apice furcata, ramo unico antherifero, altero spiniformi; *antheris* bilobis, unilocularibus, *staminum inferiorum* approximatis connatis. *Ovarium* ovatum, biloculare. *Dissepimentum* medio longitudinaliter placentiferum; *glandula* maxima, hypogyna, ad basin inferiorem; *stylus* filiformis, inclusus, glandulosus; *stigma* breve, bilobum. *Ovula* numerosa. *Capsula?* calyce longior, ovata, acuminata, placentis utrinque seminiferis.—Herba *monophylla, tropicæ occidentalis;* radice *fusiformi, perenni.* Folium *humifusum, oblongo-cordatum, pennivenium, superne strigosum, subtus venis hirsutis;* paniculis *brevibus paucifloris aggregatis, e basi in sinu foliorum erumpentibus;* floribus *glanduloso-hirsutis;* corolla *alba;* limbo *atro-sanguineo.*—Nomen, ακανθος, *a spine,* νημα, *a filament.*

Acanthonema *strigosum.*

The solitary humifuse leaf of this plant, with small panicles of long tubular flowers springing from the sinus of the leaf, singularly reminds one of some of the Southern and Eastern African species of *Streptocarpus;* but the structure of the flower, the short ovary, the four fertile stamens, together with the forked apex of the inferior pair of filaments, indicate a different genus; but, unable to find one whose character accords with it, we are reduced to the necessity of forming of it a new genus of *Cyrtandraceæ.* It is a native of tropical Western Africa. Living plants were sent home by M. Gustav Mann, from an elevation of 4000–5000 feet in the plains of Fernando Po, where it grows on rocks, and epiphytally on trees. The flowers are mottled with blood-purple; they are pretty, but we must confess that the plant is more botanically interesting than ornamental. It flowered with us from June till August; the various dried specimens were collected in flower in November.

October 1st, 1862.

Desch A small herb, with the habit of *Streptocarpus*. *Root* perennial (?), rather slender and fibrous (annual in appearance). *Leaf* solitary, radical, four inches to a span long, spreading on the ground, with the apex recurved, linear-oblong, cordate at the base, very shortly petioled, strigose with scattered hairs on both surfaces, but chiefly above; nerves transverse, parallel, very numerous, upper surface lurid green, lower glaucous. *Panicles* short, one to two inches high, sessile on the costa at the base of the leaf as in *Streptocarpus*, the peduncles being aduate with the costa, flowering in succession, those nearest the base of the leaf first; *branches* terete, spreading, and flowers covered with glandular hairs. *Pedicels* a quarter to half an inch long. *Flowers* half to three-quarters of an inch long. *Calyx* of five equal linear oblong or lanceolate lobes, one-fourth to one-fifth as long as the corolla. *Corolla* with a curved somewhat inflated *tube*, and very short spreading five-lobed *limb*. *Stamens* four, included, sometimes only two are perfect; *filaments* seated about the middle of the tube, thickened in the middle, the two lower pairs forked at the apex, one branch being antheriferous, the other is spiniform. *Anthers* transversely oblong, obscurely cohering over the stigma, two-celled; the *cells* confluent; the fifth rudimentary stamen is variable in form and size. *Disk* variable, cup-shaped and four-lobed or unilateral. *Ovary* ovoid, two-celled, with a slender pubescent style; *stigma* obscurely two-lobed. *Placentæ* with ovula on both surfaces. *Capsule?* (immature) about one-third longer than the calyx, ovoid, acuminate, with a rather pulpy *epicarp*. *Seeds* extremely numerous, spreading and ascending, with *funicles* rather long and slender.—*J. D. H.*

Fig. 1. Flower. 2. Corolla laid open. 3. One of the longer stamens. 4. Ovary. 5. Transverse section of ditto:—*all magnified.*

5340.

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Vincent Brooks, Imp.

Tab. 5340.

BOTRYCHIUM DAUCIFOLIUM.

Carrot-leaved Moonwort.

Nat. Ord. Filices, § Ophioglosseæ.—Cryptogamia Stachyopterides.

Gen. Char. Capsulæ biseriales, liberæ, erectæ, sessiles, globosæ, ab apice ad basin in valvas duas æquales hemisphæricas demum patentissimas dehiscentes. *Venæ* flabellatæ aut pinnatæ, simplices aut furcatæ, internæ venulæque apice obtusæ liberæ. *Panicula* fertilis, ramosissima, ramis (rachiolis) planis aut semiteretibus, plus minus marginatis.—*Species hujus generis in regione boreali et temperata* Europæ, Asiæ *et* Americæ, *in regione temperata* Australiæ, *et in montibus regionem temperatam referentibus* Asiæ *et* Americæ *obveniunt et magna affinitate junctæ sunt. Presl.*

Botrychium *daucifolium;* radice fasciculata, fronde sterili spithamæa et ultra membranacea subquinquangulari tripartita, partitionibus seu pinnis primariis petiolatis subdeltoideis, inferne bipinnatis superne bipinnatifidis omnibus acuminatis, pinnis vel laciniis ultimis ovatis ovato-oblongisve omnibus serratis terminali majori venis vere pinnatis conspicuis 2–3–4-furcatis, frondis fertilis tripinnatæ pedunculo elongato longe infra sterilem inserto et eam superante.

Botrychium daucifolium. *Wall. Cat. n.* 49 (*in one impression, whilst n.* 49 *of another impression is given as* "Botrychium subcarnosum, *Wall.*=Osmunda lanigera, *Wall. Herb.* 1823"). *Hook. et Grev. Ic. Fil. t.* 161; *and in Hook. Bot. Misc. v.* 3. *p.* 224. *Presl, Tent. Pterid. Suppl. p.* 46.

Botrychium subcarnosum. *Moore, Ind. Fil. p.* 312; *vix Wall.*

It would be no slight task for any one to undertake to settle the species and synonymy of the genus *Botrychium*, as may be inferred from the different views of authors on the subject; for, while Presl, in 1845, in his Tent. Pteridograph. Suppl., enumerates seventeen distinct, and Moore, in his 'Index Filicum,' in 1860, reduces them to thirteen,—yet gives two additional ones,—Dr. Hooker, in his Fl. Nov. Zelandiæ, considers it a genus "of few, perhaps only two, species." The truth perhaps lies between these different views, and in my opinion much nearer to the view of the last than the two first-mentioned authors. The present species is one of the most distinct, and yet among the least

known to authors. The only habitat given by Presl is "Nepal, *Wallich, Hugel;*" to which my herbarium enables me to add, Kamaon, *Wallich* (*Blenkworth*); Sikkim, *Hook. fil. et Thomson*, n. 356 *a* (in part); Nilghiri, *Beddome*, n. 159; Ceylon, *Gardner* (alt. 4000 feet, n. 1271), *Thwaites*, C. P., n. 1410; Java, *Thomas Lobb;* Society Islands, very rare, *Bidwill.*

The Royal Gardens are indebted to our excellent friend Mr. Thwaites for living plants, which were in great perfection in a temperate stove in June, 1862. If there is little or no question about the specific identity of this plant, there is more than ordinary confusion about the name. Presl says, that our name does not appear under n. 49 in Dr. Wallich's Catalogue, and suggests that the number should be suppressed as erroneous. Moore, in the Catalogue at the Linnean Society, finding n. 49 to bear the name of *B. subcarnosum*, has changed the name of *daucifolium*, Hook. et Grev., to *subcarnosum*, Wall.—a very unsuitable one to the plant, while that of *daucifolium* is sufficiently appropriate. It is a fact however, known perhaps to few, that of Wallich's lithographed Catalogue there have been of some of the early sheets two impressions, both of which I possess, and which are not always identical in name or number; one was sent to me accompanying the specimens distributed, and perhaps the earliest and original sheets; the other to form a library volume for reference. My specimen bears, in the former, the number "49, *B. daucifolium.*" In the other copy, n. 49 is "*B. subcarnosum,*" accompanied by the reference, "Osmunda lanigera, *Wall. Herb.* from Sirrinigur, *Kamroop.*" This latter plant, from Wallich, in my herbarium bears that name, and is a true *Osmunda—O. speciosa*, Wall. Cat. n. 50. The name *B. subcarnosum* should therefore be entirely expunged, as well as the two Wallichian synonyms of Moore, *B. speciosum* and *Osmunda lanigera*, Wall. Herb.; for they only lead to error.

Fig. 1. Ultimate segment of a frond, showing the venation. 2. Portion of a fertile rachis, with capsules and spores:—*magnified.*

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W. Fitch, del et lith.

Vincent Brooks, Imp.

Tab. 5341.

MONOCHÆTUM TENELLUM.

Slender-branched Monochætum.

Nat. Ord. Melastomaceæ.—Octandria Monogynia.

Gen. Char. Flos tetramerus. *Calycis* oblongo-campanulati *dentes* tubo subæquales aut breviores, acuti, caduci vel persistentes. *Petala* obovata. *Stamina* 8, alternatim inæqualia; *filamentis* complanatis, antheris longe subulatis acutis 1-porosis, connectivo infra loculos non producto sed postice in caudam varie conflatam anthera ipsa sæpius breviorem porrecto. *Ovarium* basi tantum costis 8 subevanidis adhærens, subtetragonum, apice villosum, 4-loculare. *Stylus* filiformis, magis minusve sigmoideus, stigmate punctiformi. *Capsula* 4-valvis. *Semina* cochleata.—Frutices suffruticesque *ut plurimum monticolæ, in Republica Mexicana necnon in Columbia et Peruvia hucusque cogniti, ramosi;* foliis *triplinerviis, septuplinerviis, nervis convergentibus pagina superiore impressis, unde folia sulcata videntur;* floribus *purpureis aut violaceis, antherarum minorum et fortassis sterilium quam fertilium ut plurimum longioribus. Naudin.*

Monochætum *tenellum;* ramis gracilibus hirtellis, foliis oblongo-ovatis acutis subintegerrimis integerrimisque quintuplinerviis sparse setulosis margine ciliato-setosis, floribus ad apicem ramorum ramulorumque in cymas pauciforas dispositis, rarius solitariis, calycinis dentibus tubo subæquilongis persistentibus. *Naudin.*

Monochætum tenellum. *Naud. Monogr. Melast. p.* 150. *n.* 5.

A very lovely Melastomaceous plant, with copious rich purple-coloured flowers and myrtle-shaped leaves, from the Nursery of Mr. Henderson, Wellington Road, London. It is a native of Guatemala, and flowered in the stove in October, 1861.

Fig. 1. Flower. 2. Calyx. 3 and 4. The two kinds of stamens:—*magnified.*

October 1st, 1862.

W Fitch, del. et lith

Vincent Brooks, Imp

Tab. 5342.

WAITZIA TENELLA.

Slender-stemmed Waitzia.

Nat. Ord. Compositæ.—Syngenesia Superflua.

Gen. Char. Capitulum multiflorum, homogamum. *Receptaculum* epaleaceum, planum vel demum convexiusculum, alveolatum. *Involucri* multiserialis *squamæ* imbricatæ exsuccæ, omnes vel saltem intermediæ et inferiores stipitatæ et appendicula petaloidea radiante colorata auctæ, discum superantes. *Corollæ* hermaphroditæ, tubulosæ, filiformes, graciles, pappum æquantes, apice 5-dentatæ. *Antheræ* basi attenuatæ, ecaudatæ. *Styli* rami apice capitellati. *Achænia* compressa, ovata, apice in rostrum producta. *Pappi* uniserialis *setæ* 10–12, ima basi concretæ et subplumosæ, supra medium serrato-scabræ.—Herbæ *Novæ Hollandiæ ;* caulibus *corymbiferis, rarissime monocephalis, a basi ad apicem foliatis ;* capitulis *hemisphæricis ;* involucri *squamis exsuccis, coloratis, discum superantibus, Helychrysi facie. Steetz.*

Waitzea *Steetziana ;* caule erecto stricto versus apicem laxe corymbosum lanato, foliis lineari-lanceolatis, involucri squamis omnibus abbreviatis discum vix superantibus ovatis acutis aureo-nitentibus, stipitibus interiorum planis laxe lanatis, floribus numerosissimis, achæniis minimis papillosis in rostrum glabrum elongatum ipsis triplo longius attenuatis, pappo aureo. *Steetz.*

Waitzia Steetziana. *Lehm. Plant. Preiss. v.* 1. *p.* 454.

Introduced by Mr. Thomson, of Ipswich, from Swan River Settlement, West Australia, to the gardens of this country, where it is likely to prove a great ornament to our flower-gardens. The flower-heads are very pretty and drooping, of a lively and bright-yellow colour, and of that dry kind known by the name of "everlasting flowers," retaining their beauty a long time after being gathered; hence well suited to the decoration of the drawing-room, even in the depth of winter.

The genus was constituted by Wendland in 1810, and is the same as *Viraya*, Gaudich., *Leptorhynchos*, Benth., and *Morna*, Lindl.

Figs. 1 and 2. Involucral scales. 3. Floret. 4. A seta from the pappus. 5. Summit of the style:—*magnified.*

October 1st, 1862.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5343.

BERBERIDOPSIS CORALLINA.

Coral-flowered Berberidopsis.

Nat. Ord. Berberideæ.—Enneandria Monogynia.

Gen. Char. Berberidopsis, *Hook. fil. mss.*—*Bracteolæ*, *sepala* et *petala* 9–15; *externa* (bracteolæ) patentia, parva, triangulari-ovata; *interiora* (sepala) orbiculata, concava; *interna* (petala) obovato-cuneata, erecta. *Torus* crassus, elevatus, cupularis. *Stamina* 8–9, intra torum inserta. *Antheræ* sessiles, lineares, apiculatæ, 2-loculares, rimis lateralibus dehiscentes. *Ovarium* sessile, anguste oblongum, 1-loculare; *stylus* crassus, columnaris, cum ovario continuus; *stigmata* obtusa, 3-loba; *ovula* 6–10, *placentis* 3 parietalibus supra medium ovarii insertis, fere orthotropa, funiculo curvo. *Fructus* ignotus.—Frutex *glaberrimus*, *sempervirens*. Folia *alterna*, *simplicia*, *petiolata*, *coriacea*, *oblongo-cordata*, *grosse spinuloso-dentata*. Flores *longe pedicellati*, *penduli*, *axillares et in racemos terminales nutantes multifloros dispositi*, *coccinei*.

Berberidopsis corallina. *Hook. fil. mss.*

The subject of our present Plate is not only one of the most beautiful hardy shrubs introduced of late years into this country, but botanically one of the most interesting; for it so completely unites the two Orders, *Berberideæ* and *Lardizabaleæ*, as fully to justify the union of these as tribes of one Order, a step already taken, previous to its discovery, in the 'Genera Plantarum' of Bentham and Hooker fil. In its scandent habit and foliage it is rather more Lardizabaleous than Berberideous. The stamens are those of the former most conspicuously. The ovary differs from both, being tri-carpellary, as in *Lardizabaleæ;* but the carpels, instead of being free, are wholly confluent into one ovary, which, but for its three-lobed stigma and three parietal placentæ, shows no signs of its composition. This charming novelty was discovered by Mr. Pearce in the forests of Valdivia; and it is not a little remarkable that so striking a plant should hitherto have escaped the notice of all botanists and collectors who have explored a region now so well known to us as Chili.

November 1st, 1862.

Descr. A glabrous, scandent or subscandent evergreen *shrub*, with long, terete *branches*. *Leaves* alternate, petiolate, simple, oblong or oblong-ovate, with cordate or rounded base, acute apex, and toothed margin; the teeth large and spinulose, of a dull deep green above, glaucous below, with yellow midrib. *Stipules* none. *Flowers* pendulous, on long, slender, deep-red *pedicels*, which are clustered in twos and threes: the axils of the upper leaves arranged in drooping, terminal *racemes*. *Pedicels* one and a half inch long, slightly thickened upwards. *Perianth* globose, of nine to fifteen deciduous *leaflets*, gradually passing into one another, all of a deep red colour, rather thick consistence, and shining surface; the outer (*bracteoles*) very small, spreading, more persistent than the others; inner (*petals*) obovate, cuneate, erect; intermediate ones (*sepals*) very concave, orbicular, and imbricate. *Stamens* seated within a cup-shaped torus. *Anthers* sessile, apiculate, two-celled, bursting by lateral slits. *Ovary* one-celled, with a short columnar *style*, three-lobed sessile *stigma*, and three parietal placentæ, with two to three ovules seated above the middle in each. *Ovules* orthotropous or curved, *funicles* pendulous. *Hook. fil.*

Figs. 1 and 2. Flowers. 3. Torus and stamens. 4. Anther. 5. Torus and ovary:—*all magnified.*

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W. Fitch del. et lith.

Vincent Brooks Imp.

Tab. 5344.

RITCHIEA POLYPETALA.

Many-petalled Ritchiea.

Nat. Ord. Capparideæ.—Polyandria Monogynia.

Gen. Char. Sepala 4, ampla, valvata. *Petala* 4 v. plura, longe unguiculata, oblonga, undulata, ungue induplicatim valvata, lamina imbricata. *Torus* hemisphæricus, carnosus. *Stamina* 12–00, margine tori inserta, *filamentis* filiformibus elongatis. *Ovarium* ovoideum, 1-loculare, longe stipitatum, *placentis* 3–4 prominulis; *ovulis* 00; *stigmate* sessili, magno, discoideo. *Bacca* elliptico-oblonga, 3–4-costata. *Semina* ignota.—Frutices *scandentes, erecti, v. sarmentosi.* Folia 3–5-*foliolata;* stipulis *obsoletis.* Flores *magni, suaveolentes, virescentes, corymbosi, longe pedicellati. Benth. et Hook. fil. Gen. Pl.* 110.

Ritchiea *polypetala;* foliis 3–5-foliolatis, foliolis oblongo-lanceolatis longe acuminatis, corymbis brevibus pauciflоris, floribus breviter pedicellatis amplis polypetalis.

R. polypetala. *Hook. in Herb. Nostr.*

A very remarkable plant, differing from its congeners, and indeed from every other plant of the Natural Order to which it belongs, in the numerous petals, which are not even multiples of the sepals as might have been expected. It was discovered by the lamented Mr. Barter, of Dr. Baillie's Niger Expedition, at Abeokuta, in 1859; and the plant here figured was sent from Western Africa, by Mr. G. Mann, the intrepid collector for the Royal Gardens, Kew, from whom so many fine and curious novelties have already been received by us and figured in this Magazine. Mr. Barter describes it as an erect shrub, growing in forests. It differs from the original species, *R. fragrans* (*Cratæva fragrans*, Bot. Mag. t. 556), in the erect habit, short peduncle and pedicels, and numerous petals. The *R. erecta* has much smaller flowers and few petals.

Descr. An erect, glabrous *shrub*, with alternate, 3–5-foliolate *leaves*. *Petioles* slender, terete, three to five inches long. *Leaflets* as long as or longer than the petioles, oblong or obovato-

lanceolate, acuminate, shortly petiolulate. *Corymbs* terminal, erect, two inches long, three- to five-flowered. *Flowers* large, four inches across the petals. *Sepals* four, ovate-oblong, deep green. *Petals* about fourteen, very narrow, strap-shaped, crumpled above the middle, acuminate, pale straw-coloured. *Stamens* very numerous, spreading, with small anthers. *Ovary* on a very long stipes. *Hook. fil.*

Fig. 1. Pedicel, gynophores, and stipitate ovarium. 2. Transverse section of ovarium :—*both magnified.*

T. Moxy, del et lith.

Vincent Brooks, Imp.

Tab. 5345.

ARISTOLOCHIA Gibertii.

Gibert's Aristolochia.

Nat. Ord. Aristolochieæ.—Gynándria Hexándria.

Gen. Char. (*Vide supra*, Tab. 5295.)

Aristolochia *Gibertii;* herbacea, volubilis, scandens, glaberrima, caule gracili tereti, foliis petiolatis reniformi-rotundatis integerrimis apiculatis sinu profundo, stipulis amplis rotundato-cordatis acutis, floribus axillaribus solitariis, perianthii viridis tubo basi oblique ampullæformi inflato, dein breviter constricto, ore campanulato bilabiato, labio superiore fornicato oblongo obtuse apiculato purpureo transverse ad margines picto, inferiore decurvo linguæformi intus tomentoso, stylo obconico 6-cornuto, antheris linearibus.

Aristolochia Gibertii.

A fine free-growing, tropical climber, more desirable for its handsome foliage than for any beauty in its flowers; it was raised from seeds sent to the Royal Gardens by M. Gibert, who collected it in woods at Assumption, in Paraguay, in June, 1858; and it flowered in September of the present year.

Descr. A lofty, perfectly glabrous *climber*, with twining, terete, green *stems* and *branches*, and solitary, axillary *flowers*. *Leaves* two to four inches across, on petioles as long, round-reniform, minutely apiculate, quite entire, with pedate venation, of a fine green above, but not shining, paler and glaucous below. *Stipules* very large, rotundato-cordate, foliaceous. *Peduncles* axillary, solitary, curved, terete, shorter than the petioles, one-flowered. *Flowers* two to two and a half inches long, of a dull yellow-green, spotted with purple on the base of the tube; the upper lip purple down the middle, and transversely barred with the same on the edges. *Perianth* suddenly inflated at the base into a gibbous balloon, then suddenly contracted into a short, terete *tube; limb* two-lipped, gaping; upper lip linear-oblong, truncate with a dorsal horn, hairy inside down the centre, the

lower lip longer, decurved, broadly tongue-shaped, densely hairy on the inner surface. *Style* short, terminating in six, erect, stigmatic horns. *Anthers* linear.

Fig. 1. Base of perianth, and style and anthers,—*magnified.*

W. Fitch del. et lith.

Vincent Brooks Imp.

Tab. 5346.

HIGGINSIA REFULGENS.

Shining Higginsia.

Nat. Ord. Rubiaceæ, § Hedyotideæ.—Tetrandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5280.)

Higginsia *refulgens;* patentim pilosa, caule crasso, foliis sessilibus obovato-oblongis acutis basi attenuatis utrinque pilosis subarcte plicato-nervosis pallide fusco-viridibus rubro tinctis subtus sordide rubris pallidis, floribus subcymosis, cymis longe pedunculatis, calycis tubo tetragono lobis triangulari-ovatis acutis, corollæ lobis patentibus rubris linearibus subacutis.

Campylobotrys refulgens. *Hort.*

A very beautiful plant, native, it is presumed, of South America, of which a plant was presented to the Royal Gardens, by Mr. Ball, from his Nursery, King's Road, Chelsea, under the name of *Campylobotrys fulgens*. It flowered in May of the present year. It has already been shown in this work, under *H. regalis*, t. 5280, that the genus *Campylobotrys* has been referred by Planchon to the long-established *Higginsia* of Persoon, the same as *O'Higginsia* of Ruiz and Pavon. The present species is closely allied to *H. discolor* (*Campylobotrys discolor*, Bot. Mag. t. 4530), but differs in the more robust habit, sessile leaves, much larger flowers, and different calyx.

Descr. A succulent, pilose, erect, branching *herb*, with erect, purple, almost terete *branches*, opposite leaves, and axillary, solitary, long-peduncled *cymes* of red flowers. *Leaves* three to five inches long, narrow obovate, subacute, contracted at the base, but not petioled, the margins of the blades of the opposite pairs meeting, rather succulent, but not coriaceous, marked with numerous parallel veins, upper surface dull-green, but very beautiful, owing to the suffused red tint especially towards the margins, and the play of reflected lights from the cellular surface; under side pale reddish. *Peduncles* solitary, axillary, shorter than the pale-green leaves, erect, slender, purple-red, pilose, bearing a short cyme of

six to ten, crowded, pedicelled flowers. *Flowers* upwards of an inch across, pale-red. *Calyx* 4-gonous, angles pilose, lobes with solitary, minute, interposed teeth. *Corolla* lobes much longer than the tube, linear, acute. *Anthers* linear. *Style* slender, erect, with linear *stigmata*.

Fig. 1. Flower. 2. Calyx and pistil, with corolla removed :—*both magnified*.

W. Fitch, del et lith.

Vincent Brooks, Imp.

PANÆTIA Lessonii.

Lesson's Panætia.

Nat. Ord. Compositæ.—Syngenesia Superflua.

Gen. Char. Capitulum multiflorum, heterogamum, *floribus* tubulosis, *radii* paucis fœmineis, *disci* hermaphroditicis. *Involucri* hemisphæerici *flores* æquantis *squamæ* imbricatæ, intermediæ petiolatæ, appendice lata scariosa fimbriato-dentata, extimæ ad appendicem redactæ. *Corollæ* tubulosæ, *radii limbo* tripartito, lobis linearibus; *disci* longe tubulosæ, quinquefidæ. *Antheræ* (basi longissimæ bisetæ, apice attenuatæ, *Steetz*). *Stigmata* (apice appendice brevi, conica, papillosa aucta, *Steetz*). *Achenia* conformia, oblonga, erostria. *Pappi setæ* tenuissimæ, superne plumosæ, *radii* binæ, *disci* tres v. quatuor.—Herba *Novæ-Hollandiæ austro-occidentalis, annua, parvula, erecta, gracilis*; caule *sparsim piloso, apice in ramos monocephalos diviso*; foliis *alternis, sessilibus, oblongis, acutis, integerrimis, subtus albido-tomentosis*; capitulis *solitariis, luteis. Endl.*

Panætia Lessonii. *Cassini, in Ann. Sc. Nat.* 1829. *pp.* 19 *and* 32. *De Cand. Prodr. v.* 6. *p.* 162. *Steetz, in Pl. Preiss. v.* 1. *p.* 461.

Panætia of Cassini is a genus of one species, native of King George's Sound, and that one of the most graceful of the *Helichrysum* or dry-flowered group of *Compositæ*, imported by Mr. Thomson, of Ipswich, to whom we are indebted for the specimen here figured. It is an annual, and flourishes in the open air in the summer. Sown in masses, or planted out in rather compact masses, it cannot fail to prove a valuable border flower.

We hardly see why this genus should not be united with *Waitzia* of Wendland, of which a species is given at Tab. 5342 of the present volume.

Descr. *Root* annual. *Plant* erect, graceful. *Stem* slender, wiry, terete, dichotomously branched from the base, about a foot high. *Branches* glabrous, purplish green, erect or nearly so, terminating in a very lax *corymb* of very slender flower-stalks, each bearing a single *capitulum*, or head of flowers. *Leaves* distant, one at the setting on of every branch, and at the base

of each peduncle, oblong, acute, one and a half to two inches long, sessile and subamplexicaul, slightly hairy above, dark-green beneath, and very glaucous and arachnoid. *Peduncles* three to four inches long, singularly slender, terminated by a solitary, globose, drooping *head* of flowers, scarcely half an inch in diameter. *Involucre* hemispherical, consisting of densely imbricated, yellow-green, hyaline, membranaceous *scales*, closely pressed, ovate or trowel-shaped, silky at the margin, stipitate; *stipes* as long as the scale, glandularly pilose, lower scales sessile or nearly so. *Florets* very numerous, bright yellow, all tubular, much longer than the involucre, a few outer ones female, the rest perfect: *tube* of the corolla long, very slender, infundibuliform; *limb* of five, ovate, spreading *segments*. *Anthers* scarcely exserted. *Ovary* oblong, cylindrical, crowned with a *pappus* of four, long, slender setæ, clubbed and hispid at the apex; *branches* of the *style* linear, acuminated, the apex conical, hairy.

Figs. 1 and 2. Scales from the involucre. 3. Floret from the disk. 4. Seta from the pappus. 5. Branches of the style:—*all more or less magnified*.

V Fitch del et lith

Vincent Brooks Imp

TAB. 5348.

OPHIOPOGON SPICATUS.

Purple-flowered Snakesbeard.

Nat. Ord. OPHIOPOGONEÆ.—HEXANDRIA MONOGYNIA.

Gen. Char. Flores hermaphroditi. *Perigonium* corollinum, liberum v. basi ovario adnatum, limbo sexpartito. *Stamina* 6, perigonii basi inserta; *filamenta* brevissima v. elongata, filiformia v. inferne dilatata; *antheræ* oblongæ, lineares v. sagittatæ, basifixæ, mucronatæ. *Ovarium* liberum v. cum perigonii basi cohærens, trilobum, triloculare. *Ovula* in loculis 2, collateralia v. superposita, anatropa. *Stylus* trigono-pyramidatus; *stigma* brevissime trifidum. *Semina* 4–6, ex ovario mox disrupto erumpentia, omnino nudata; *testa* cærulea, subcarnosa.—Herbæ *in* Asia *australi et orientali indigenæ;* foliis *lineari-ensiformibus, basi vaginantibus.* Flores *in racemo spicæformes fasciculati,* scapum *ancipitem v. angulatum terminantes;* pedicellis *articulatis.*

OPHIOPOGON *spicatus;* scapo foliis subæquali vel longiore, fasciculorum racemo laxiusculo elongato, pedicello apice articulato, bracteis brevibus, perigonio violaceo, foliolis conniventibus, filamentis elongatis, ovarii loculis 2-lobis, ovulis 2 collateralibus.

OPHIOPOGON spicatus. *Gawl. in Bot. Reg. t.* 593. *Kunth, En. Plant. v.* 5. *p.* 299.

CONVALLARIA spicata. *Thunb. Fl. Jap. p.* 141. *Willd. Sp. Pl. v.* 2. *p.* 161.

LIRIOPE spicata. *Loureiro, Cochin. p.* 200.

FLÜGGEA spicata. *Schult. Syst. Veget.*

Botanists vary in opinion as to the Natural Order of this plant. Its first describer refers it to *Asphodeleæ*, apparently with the sanction of Mr. Brown. Endlicher places it at the end of his *Smilaceæ*, among a section of "Genera Smilaceis affinia;" and in a subsection, which he calls *Ophiopogoneæ* (including besides *Ophiopogon*, *Bulbospermum*, Bl., and *Peliosanthes*), and between his *Aspidistreæ* and *Herrerieæ*. Dr. Lindley refers our genus to his eleventh section of *Liliaceæ*, corresponding with *Ophiopogoneæ* of Endlicher, and lastly Kunth constitutes a separate Order for it, *Ophiopogoneæ*. Nor are all agreed about the limits

of the genus, for while Gawler refers this plant to his original *Ophiopogon* (*O. Japonicus*), Richard constitutes of the latter a distinct genus, by the name of *Flüggea*. Gawler's artist has not done justice to the plant in his figure above quoted, for the graceful habit, broad, grassy leaves, and the long spike of bright purple-blue flowers, render it a pretty object. It is a native of Cochin China, China, and Japan; but not, as has been stated, of Northern India, where a similar but different species is found.

Our plants were raised from seeds sent by Pemberton Hodgson, Esq., from Hakodadi, in Japan, and the flowers are in perfection in a cool greenhouse in October, 1862.

Descr. *Leaves* all radical, six inches to a foot long, subgramineous, narrow, linear-lanceolate, obtuse, three-nerved, and obscurely striated; at the base they are surrounded by a few membranaceous scales. *Scape* erect, dark livid-purple, angular, longer than the leaves, and terminated by a spicated raceme six to twelve inches long. The *flowers* are rather small, in fascicles or clusters of three to five, which are bracteated; *bracts* ovate acuminated. *Pedicels* short, green, upon which the flowers are jointed at the very apex. *Perianth* deep violet-blue, subcampanulate, divided down to the ovary into six, moderately spreading, ovate-oblong, obtuse concave segments. *Stamens* six, suberect, much shorter than the segments of the perianth. *Filaments* short, filiform, moderately incurved. *Anthers* linear-oblong, bright yellow, scarcely sagittate at the base. *Ovary* free, depressed, three-lobed, the lobes globose, two-lobed, 2-ovuled; *ovules* collateral. *Style* columnar, about as long as the stamens; *stigma* obtuse, not sensibly divided.

Fig. 1. Fascicle of flowers from a portion of the rachis. 2. Base of flower; ovary and style:—*both magnified*.

W Fitch, del et lith

Vincent Brooks, Imp.

Tab. 5349.

CYPRIPEDIUM Stonei.

Mr. Stone's Cypripedium.

Nat. Ord. Orchideæ : Tr. Cypripedeæ.—Gynandria Diandria.

Gen. Char. Perianthium patens. *Sepala* lateralia connata aut distincta, labello supposita. *Petala* libera, sæpius angustiora. *Labellum* inflatum, margine utrinque auriculato inflexo. *Columna* nana. *Stamina* 3, quorum unum sterile, centrale, dilatatum, inflexum, et 2 fertilia lateralia. *Antheræ* sub stamine sterili latentes, subrotundæ, biloculares. *Pollen* pulveco-granulosum. *Stylus* subliber, teres, *stigmate* disciformi terminatus. (*Capsula* unilocularis.)—Herbæ *terrestres utriusque orbis, ab æquatore fere ad circulum arcticum vigentes.* Folia *radicalia aut caulina.* Flores *solitarii, racemosi v. paniculati, speciosi. Lindl.*

Cypripedium *Stonei ;* acaulis, folis binis pedalibus oblongis coriaceis obtusis brevi-mucronatis, scapo elongato atro-purpureo folia subæquante subtrifloro, bracteis lanceolatis conduplicatis acuminatis, sepalis duobus (lateralibus in unum connatis) amplis late ovatis acuminatis, petalis 5-uncialibus pendentibus linearibus acuminatis basi ciliatis, labello unguiculato, ungue marginibus introflexis apice amplo cucullato calceolariformi, ovario sesquiunciali oblongo 6-angulari uniloculari, stamine sterili ovato carnoso obtusissimo, stigmate amplissimo obovato bilobo margine supra dense fimbriato.

Cypripedium Stonei. *Hort. Low.*

This superb new species of *Cypripedium* was received in October of the present year from the collection of J. Day, Esq., of Tottenham. It was very recently imported from near Sarawak, Borneo, by Messrs. Hugh Low and Son, of Clapton Nursery, who express a wish that it should bear the name of Mr. Day's able gardener, Mr. Stone. Nothing like this, as far as I know, has ever been received from the Old World ; but it is evidently allied to a species gathered by Ruiz and Pavon, in Peru, *C. caudatum* of Dr. Lindley, figured at t. 659 of our 'Icones Plantarum,' from a dried specimen, and without our having any knowledge of the foliage : but the form and size of the sepals and petals will abundantly distinguish it.

Descr. Stemless. *Roots* large, vermicular, fleshy. *Leaves*

with a few sheathing short scales at the base, ten to twelve inches, two arising from the same root, oblong, coriaceo-carnose, dark green, subcanaliculate, very obtuse, with a short mucro. *Scape* radical, arising from between the two leaves, with a large conduplicate sheathing *bract* at the base, a foot long, terete, dark purple, terminating in our specimen in three large, very handsome, bracteated, pedicelled *flowers*. *Bracts* resembling that at the base of the scape, but smaller. *Pedicels* shorter than the bract, supporting an elongated, six-angled, one-celled *ovary* or immature *capsule*, one and a half to two inches long. *Sepals* two, large, spreading, uniform in shape, but the upper one the largest, broad-ovate, acuminate, white within, streaked and mottled with dark-purple externally, and tinged with yellow; the lower one is, however, formed of the two lateral combined sepals. *Petals* four to five inches long, curved downwards, linear acuminate, tawny yellow, lined and blotched with purple, ciliated on the margin at each side of the base. *Lip* large, standing forward horizontally, the lower half contracted, the sides involute, white, the rest cucullate, purplish, with red reticulated veins; the whole shaped like a Turkish slipper. *Style* a short white *column*, bearing, upon a separate branch, two orbicular, yellow, sessile *anthers* at the base of a large abortive, ovate, white, fleshy disk or abortive third stamen: another short branch of the style bears the *stigma*, a large, cordate, fleshy disk, yellowish, margined with a thick filamentous fringe.

Fig. 1. Style and stigma, with staminiferous column, side view. 2. Front view of the same, showing the two anthers. 3. View of the upper surface of the stigma. 4. Front view of a labellum. 5. Transverse section of an immature capsule.—*all slightly magnified.*

N.B.—By a strange oversight, in the last number of our 'Botanical Magazine,' under t. 5343, *Berberidopsis corallina*, it was omitted to be noticed that that most lovely new shrub was imported from Chili by Messrs. Veitch and Sons, of Exeter and King's Road, Chelsea, and that the specimen figured was derived from a plant in the open ground at Exeter.

W Fitch del et lith

Vincent Brooks Imp

Tab. 5350.

HELIPTERUM Sandfordii.

Major Sandford's Helipterum.

Nat. Ord. Compositæ.—Syngenesia Æqualis.

Gen. Char. Capitulum multiflorum, discoideum, homogamum, *floribus* omnibus hermaphroditis, rarissime floribus centralibus abortivis heterogamum. *Involucri* imbricati *squamæ* scariosæ, interiores conniventes vel radiantes. *Receptaculum* nudum vel alveolatum sive fimbrilliferum. *Corollæ* tubulosæ, *limbo* quinquedentato. *Antheræ* basi bisetæ. *Stigmata exserta*, obtusiuscula. *Achenia* sessilia, erostria, areola terminali. *Pappi setæ* uniseriatæ, plumosæ, liberæ vel basi connatæ.—Herbæ *v.* suffrutices, *in Capite Bonæ-Spei et in Nova-Hollandia indigeni ; facie* Helichrysi, involucris *albis vel flavis.*

Helipterum *Sandfordii ;* suffruticosum totum arachnoideo-tomentosum, caulibus erectis pedalibus sesquipedalibus, basi parce ramoso apice composito-corymboso, foliis lineari-lanceolatis, involucris elongato-turbinatis squamis aureo-flavis, ovatis imbricatis, internis radiantibus, flosculis tubulosis, limbo quinquefido, acheniis (immaturis), pappi setis hirsuto-plumosis.

Helipterum Sandfordii. *Hort. Thompson.*

Whether or not this be one of the species of *Helipterum* of the 'Plantæ Preissianæ,' or whether it be a true *Helipterum* or a *Helichrysum*, I will not venture to say. De Candolle, who established the genus *Helipterum*, says of it, "omnia *Helichrysi*, sed pappus plumosus." In *Helichrysum* the "pappus is subscabrous." In our plant the pappus is more than scabrous, yet scarcely plumose.

The present species has long been in our herbarium, gathered by Mr. James Drummond (n. 160) in Western Australia, "between Moore and Murchison Rivers," and we have also received native specimens from Mr. Burgess, collected in 1860. Mr. Thompson, of Ipswich, has raised it from seeds sent from the Swan River settlement by Major Sandford, whose name he desires it should bear,—a gentleman who has done much during a long sojourn in Western Australia to explore the natural

history products of that colony. It is likely to constitute a good bedding-out plant for our summer flower-borders.

Fig. 1. Capitulum. 2. Inner radiating scale of the involucre. 3. Floret. 4. Seta of the pappus. 5. Branches of the stigma :—*all more or less magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5351.

PHALÆNOPSIS Lowii.

Mr. Low's Phalænopsis.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Perianthium explanatum, patens, *sepalis* liberis, *petalis* majoribus dilatatis. *Labellum* cum basi paulo producta columnæ connatum, liberum, basi callosum, trilobum; lobis lateralibus ascendentibus petaloideis, intermedio angustiore bicirrhoso. *Columna* in ovarium recumbens, semiteres; *rostello* gladiato. *Anthera* bilocularis. *Pollinia* 2, subglobosa, *caudicula* plana spatulata, *glandula* maxima cordata.—Herba *epiphyta*. Caules *radicantes, simplices*. Folia *rigida, lato-lanceolata, apice oblique retusa*. Flores *paniculati. Lindl.*

Phalænopsis *Lowii;* radice crasse fibrosa, foliis paucis oblongis acutis carnosis, scapo gracili subspithamæo 4–5-floro, bracteis minutis ovatis acutis, floribus remotis albis roseo-tinctis, sepalo superiore late ovato acuto, lateralibus oblongis, petalis latissime cuneatis obtusissimis, labello parvo longitudine sepalorum lateralium trilobo, lobis lateralibus brevibus linearibus reflexis, intermedio oblongo purpureo lineato medio carinato apice eroso, basi cristato, rostello longe proboscideo.

Phalænopsis *Lowii. Reichenb. fil. in Bot. Zeit.* 1862, *n.* 27. *p.* 214.

A most lovely species of *Phalænopsis* from Moulmein, discovered by the Rev. C. S. P. Parish, for the introduction of which to Europe we are indebted to Messrs. Low and Son, of the Clapton Nursery. It is one of eleven new species of Orchids which have been recently described by Dr. Reichenbach, fil., from Mr. Low's Orchideous House, during a recent visit to England, and given in the July number of the 'Botanische Zeitung' for 1862. If this species falls short in size and purity of white in the flowers of the well-known *Phalænopsis amabilis*, it compensates for those deficiencies in the delicate rose-tints of the petals and labellum; and the shape of the lip and of the rostellum are very remarkable,—that of the latter quite resembling the head

and long beak of a bird, as may be seen in our figures. The nearest affinity of the species is with *Phalænopsis rosea*, Lindl., given in Bot. Mag. t. 5212; but the two are quite different.

Fig. 1. Side view of the column, rostellum, and labellum. 2. Front view of the same:—*magnified*.

Vincent Brooks, Imp.

Tab. 5352.

DRACÆNA PHRYNIOIDES.

Phrynium-like Dracæna.

Nat. Ord. Asparagineæ.—Hexandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5248.)

Dracæna *phrynioides;* suffruticosa, caule declinato brevi basi squamoso dein folioso, foliis longe petiolatis ovatis acuminatis coriaceis striatis late viridibus maculis pallidis ovalibus transversis variegatis, petiolis teretibus antice canaliculatis basi insigniter dilatatis incrassatisque, capitulo terminali subsessili bracteato, bracteis numerosis late ovatis purpureis ventricosis longe acutissime subulatis, corollæ tubo gracili, filamentis superne valde dilatatis.

Tropical Africa is eminently rich in species of the genus *Dracæna*, and not a few of them are well known to be remarkable for the variegated or coloured foliage, not of a uniform green. The present is a new and very distinct species, sent from Fernando Po by M. Gustav Mann, in 1860. Being anxious to distribute so very pretty a plant named, it has been sent out before it blossomed, under an impression that it was a species of *Phrynium*, and with the specific appellation of *maculatum*. Now that it has proved to be a *Dracæna*, and there being already a *Dracæna maculata*, the name of *D. phrynioides* may not be considered inappropriate. The flowers were produced in August of the present year; and they were found to expand only at night or before the early morning, and to close again by ten o'clock.

Descr. *Stem* short and stout, suffruticose but succulent, subdecurrent at the base, thence erect and leafy, but rarely exceeding five inches in length, including the terminal head of flowers. *Leaves* six inches long, broad ovate, finely acuminate, coriaceous, striated, dark green, with transversely oblong, rather large, sulphur-coloured spots. *Petioles* longer than the leaves when at full size, terete, channelled in front, thick and broad sheathing at

the base. *Flowers* in a dense bracteated globose *head*, sessile or nearly so among the leaf-stalks. *Bracts* large, concave, dark purple, broad ovate, very finely acuminated into an almost setaceous point. *Corolla* white, tinged with rose; *tube* long and slender; *limb* of six spreading, linear-oblong lobes. *Filaments* singularly thickened upwards, contracted again under the anther.

Fig. 1. Flower. 2. Limb of corolla and stamens. 3. Stamen. 4. Pistil. 5. Transverse section of ovary:—*magnified*.

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3.

W.Fitch,del.et lith

London, Reeve Brothers

Tab. 5353.

ACROTREMA Walkeri.

General Walker's Acrotrema.

Nat. Ord. Dilleniaceæ.—Polyandria Trigynia.

Gen. Char. Sepala 5, patentia. *Petala* 5. *Staminum filamenta* in fasciculos 3 plus minus aggregata, apice haud dilatata. *Antheræ* erectæ, sublineares, ab apice ad medium v. infra dehiscentes. *Carpella* 3, plus minus cohærentia, 2–00-ovulata, maturitate irregulariter dehiscentia v. disrupta. *Arillus* membranaceus.—Herbæ *subacaules*, rhizomate *perenni v. lignoso.* Folia *ampla*, parallele *pennivenia, transverse venulosa* v. *pinnatim lobata v. dissecta.* Petioli *alati*, alis (stipulis?) *deciduis.* Pedunculi *axillares, laxe pauciflori vel racemoso-00-flori.* Flores *flavi. Benth. et Hook. fil.*

Acrotrema *Walkeri;* foliis crenato-dentatis subauriculatis, utrinque præcipue superne marginem versus et subtus ad costam nervosque pilosis, pedicellis patentim pilosis, staminibus circiter 15. *Thwaites.*

Acrotrema Walkeri. *Wight, MSS. Thwaites, En. Plant. Zeylan. p.* 3.

Of this pretty Indian genus, of which ten species are recorded in Mr. Thwaites's 'Enumeratio,' the present is, we believe, the first that has ever been introduced alive to Europe. It was sent to us by our valued friend just mentioned, in 1861, and was in great beauty in the month of June of the present year. It inhabits mountains in the central province of Ceylon, at altitudes of from 2000 to 4000 feet, and may be found to succeed even better in a temperate greenhouse than in a hot stove, where we have hitherto kept it. Its deeply-plaited leaves and humble growth remind one of those of our Primrose and Cowslip, but the young foliage is pale-coloured and deeply tinged with rose, while the flowers more resemble those of a *Ranunculus*, and the Natural Family to which it belongs (*Dilleniaceæ*) is next neighbour to that of the *Crowfoots*. A nearly-allied species to the *A. Walkeri* is our *A. uniflorum*, figured in 'Icones Plantarum,' vol. ii. p. 157; but the stem is there elongated, and the flower-stalks are appresso-pilose. A still more

elegant and stemless species, with single-flowered peduncles, is the *A. Thwaitesii*, Hook. fil. et Thomson, given in 'Kew Garden Miscellany,' vol. viii. p. 241. t. 4; this has deeply-pinnatifid leaves, resembling fronds of the well-known Fern, *Blechnum Spicant*.

Fig. 1. Under side of a flower. 2. Upper side of ditto. 3. Portion of a fascicle of stamens, of which one is abortive:—*magnified*.

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